HOPE'S

Casements and Leaded Glass

DAVID McGILL
Agent for the Province of Quebec
320 LAGAUCHETIERE ST. WEST,
MONTREAL

TRADE MARK

HOPE'S

CASEMENTS & LEADED·GLASS

HENRY HOPE & SONS
103 Park Avenue, New York, N.Y.
Telephone: MURRAY HILL 1514.

CANADA: Henry Hope & Sons of Canada Ltd.
45 King Street West, Toronto, Ont.
Telephone: MAIN 6185.

ENGLAND: Henry Hope & Sons Ltd.
59 Berners Street, London, W.
55 Lionel Street, Birmingham.
Cables: "CONSERVATORY, BIRMINGHAM."

1st January, 1919. *All previous lists cancelled.*

INTRODUCTION

Our Sections.

Our new Sections 21, 22 and 23 are each of universal application, and differ only in weight and strength. Each is made to hinge at side or at top to open outwards; to hinge at side or at bottom to open inwards; to swing vertically on pivots (known as cleaning casements) or to swing horizontally on pivots.

We also make a special cleaning casement, hung on strap hinges, to give the minimum of projection inside the room when open at any angle.

All patterns can be made to glaze either inside or outside, and all have two points of contact at head, jambs and cill *without the application of any loose pieces.*

Quality.

We supply three qualities.

Qualities 1 and 2 are both fitted and finished in the same manner, with two coats of anti-corrosive lead coloured paint, after thorough cleaning; but Quality 1 is fitted with bronze fittings, and Quality 2 with iron fittings. Quality 1A is finished with a coat of hard drying enamel on the top of the two coats of paint, the fittings being the same as for Quality 1, with the exception that the stay bracket and moving bar are both of solid bronze. Extra hand work is employed on this quality to give an exceptionally fine finish throughout.

Solid Bronze Casements.

For the highest class of work we recommend the use of solid bronze; it is everlasting in wear, has a beautiful surface and improves in colour with age.

We make all our sections in this metal and will furnish samples and estimates of the cost when desired.

Which Section to use.

We have printed under each full size detail the maximum heights and widths to which each section should be restricted. We have arrived at these sizes after many years of experience, and we most strongly deprecate exceeding these with sections of equal or lesser weight.

Setting and Glazing.

We strongly advise customers to arrange for the setting and glazing of our casements to be done by our own workmen. We keep a special staff of men for this purpose, and will forward estimates for the work, including all expenses, upon application. It is to the customer's advantage that this course should be taken, as otherwise we cannot be responsible for the satisfactory nature of our work upon completion.

Leaded Glass.

The importance of leaded glass being manufactured in the same works and under the same supervision as the metal casements is now well recognised, and our work in this department will be found thoroughly satisfactory.

Metal Windows for Public Buildings.

We are prepared to give expert advice on the design and construction of all special windows, either in steel or solid bronze, and to assist architects with drawings, specifications or p.c. prices for any scheme of fenestration however elaborate.

Glazing.

Our universal casements are designed to glaze from either outside or inside, but we recommend outside glazing as a general rule,

(1). Because wind pressure is against the rebate of the steel casement, and the glass is not liable to be shaken while the putty is soft.

(2). Because the handle plates and stay brackets can be more neatly and securely applied than with inside glazing.

NOTE.—Inside glazing is only tolerable where beads are used, as front putty on the inside is always liable to get damaged and to have a very slovenly appearance.

Condensation Gutters.

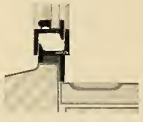
Condensation only occurs during the first few months of occupation of a new building, while the walls are loaded with moisture, and during this early period condensation gutters or lips, which are a common feature of many metal casements, are quite useless on account of their small capacity, while the so-called outlet holes which are necessary to complete the function of the lip or gutter, in practice only serve as inlet holes for rain and wind during cold and stormy weather.

Condensation disappears in an occupied building that is dry and properly ventilated; and it is therefore a mistake to apply ineffective lips or gutters, with their corresponding draught and rain holes, which are a permanent source of draught and leakage. *The futility of the condensation lips which are applied to steel casements is well illustrated by the fact that there are usually twice the number of fixed lights where no such lips or gutters are applied.*

We have made many enquiries about condensation from owners of houses where our casements have been fitted in past years. We have also examined a considerable number of casements during recent Winters, and while there is no evidence of trouble from condensation in houses which are reasonably dry and ventilated, complaints of leakage and draught through weep-holes are not at all uncommon.

We first introduced condensation gutters on cills in 1894, and these devices have been copied so largely as to have become almost a standard feature in Casement construction. Having proved, however, that they are not only futile, but a source of leakage, we have abandoned them for the reasons above stated.

Where large sheets of glass are employed in very cold climates, we recommend that a wide shallow channel should be formed in the cill, as sketch. Condensation will evaporate from such a channel, or if excessive can be readily mopped up.



Rust-Proofing.

We have put down a plant for Rust-proofing steel casements by a patent process which has been tested for some years in various industries, and proved effective when properly applied. We are now prepared to supply any of our casements or windows rust-proofed before painting, and strongly recommend this process on account of the saving which it effects in periodical painting. Corrosion of steel casements and windows arises frequently from the conditions which obtain on most buildings while the casements are being fixed and glazed. They are subjected at that time (particularly during Winter) to most trying conditions, which the usual shop coats of paint are inadequate to resist. Our Rust-proofing process insures the owner of a building against initial corrosion, which is always liable to reappear however carefully subsequent painting is done.

IMPORTANT.—All casements should open outwards, unless very special reasons dictate that they should open inwards. An outward opening casement is weathertight, is not in the way of furniture when open, and serves as a wind deflector, giving the best form of ventilation in quite cold weather. Blinds, curtains or fly-screens are all easily applied.

HOPE'S
METAL·WINDOWS
Specification

Bars. Each section is of solid rolled steel, hydraulically straightened, and free from hammer marks or distortions of any kind.

Joints. All joints are cut on milling machines (not punched), and are either welded by the oxy-acetylene process, or by special electric welding machines. Every joint after welding is ground and sandblasted.

Plates & Brackets. The handle plates and stay brackets are mild steel drop forgings, accurately machined and electrically welded to the casements.

Hinges. Our hinges are of solid bronze, of special heavy sections; the joints machine cut and bored.
It should be noted that the design of our hinge allows the casement to lift clean off the frame without scraping or binding, and that no essential part of either the casement or frame is cut away to receive the hinge, thus leaving the steel sections at their maximum strength.

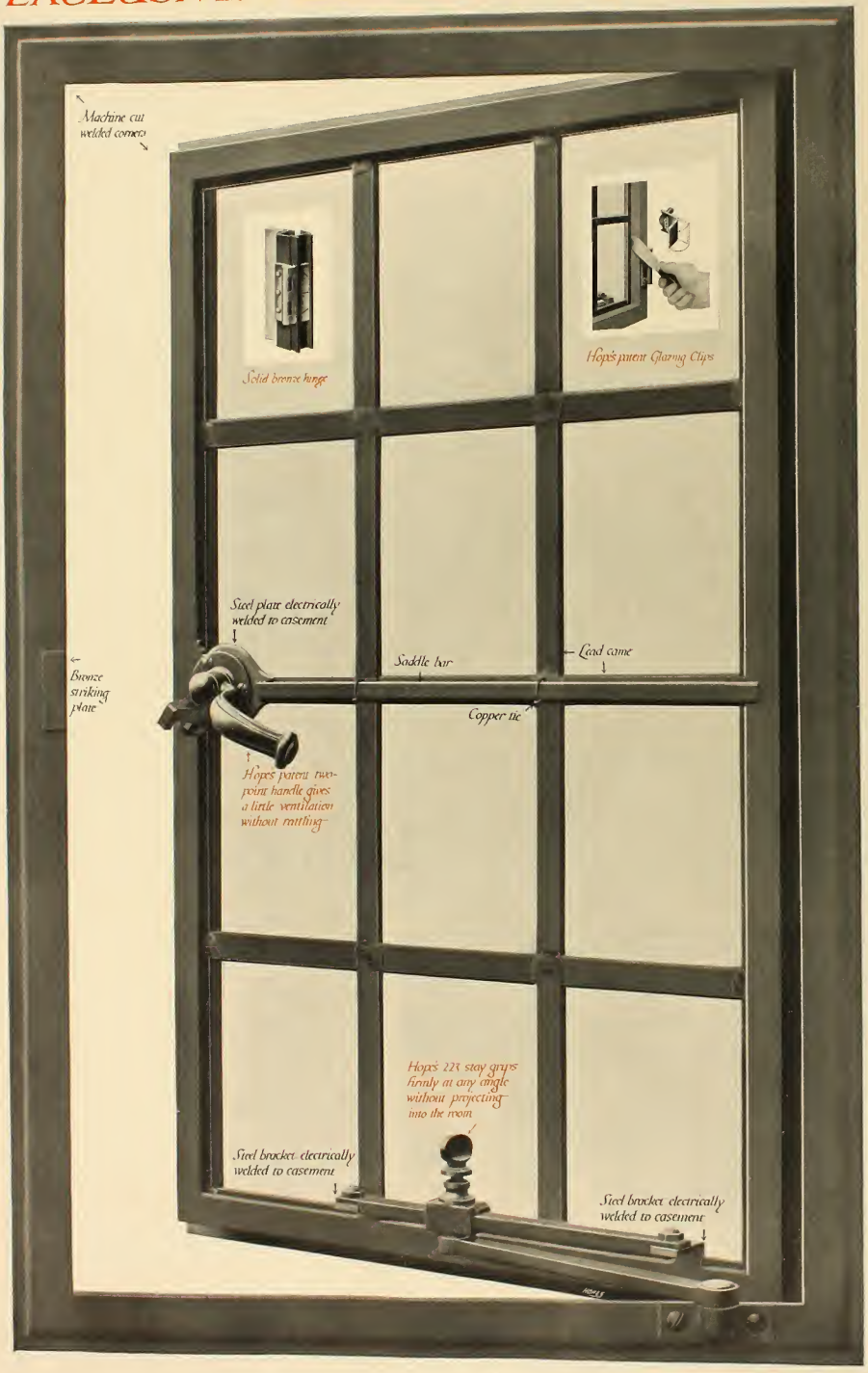
Hardware. *Side hung casements and Cleaning casements.* Quality 1 are fitted with any of the bronze handles on page 21 and Stay 223 (any peg stay on the same page may be used at a reduction of 50 cents per casement).
Quality 2, any of the iron handles on page 21, and any of the iron peg stays on page 22.
Top hung casements. Quality 1, fitted with either Opener 502 or 506 (see page 24), or any bronze peg stay.
Quality 2, any iron peg stay, or Opener 506 in iron.
Bottom hung casements. Quality 1, fitted with spring catch and Hope's Patent Passable Side Arms (see page 24).
Quality 2, with plain iron folding side arms.
Swinging casements. One quality only, fitted with gunmetal spring catch, cord eye and pulley.

Painting. For Qualities 1 and 2: *Two* coats of anti-corrosive paint after thorough cleaning by sandblast.
For Quality 1A, an additional coat of hard setting enamel.

Fit & Finish. The best. Only first-class well trained artisans are employed upon the finishing processes.

Inspection. All our casements are subjected to a rigid inspection as to size, quality and finish before despatch.

HALF · FULL · SIZE · PHOTOGRAPH
of a HOPE'S CASEMENT – Quality 1 –
shewing
EXCLUSIVE FEATURES of EQUIPMENT



Form of Specification for Architects' Use

CASEMENTS to be of rolled steel [or solid bronze] manufactured and supplied by Henry Hope & Sons, of their Section 21, 22 or 23 according to size [*here state Quality, and how to open*], fitted with Hope's Standard Fittings, of designs to be selected from their catalogue. All to be provided with Hope's patent Copper Glazing Clips for [*here state thickness and quality of glass to be used*] or where glazing beads are required, specify "Glazing Beads either of hardwood or galvanized steel." The whole to be set in place and glazed by the manufacturers, Henry Hope & Sons, 103 Park Avenue, New York.

RECENT EXAMPLES AND WORK IN PROGRESS:—

University Buildings in the United States of America :—

Boston	Harvard	Pennsylvania
Chicago	Michigan	Princeton
Cornell	Missouri	Yale

University Buildings in Canada :—

Mc Gill	Saskatchewan	Vancouver
Regina	Toronto	Victoria, Toronto

Public and Mercantile Buildings :—

London County Hall
Parliament Buildings, Winnipeg
Parliament Buildings, Wellington, N.Z.
N.Zealand Insurance Co., Auckland, N.Z.
S. American Insurance Co., Buenos Aires
Savoy and Berkeley Hotels, London
Municipal Buildings, Shanghai, China
National Library of Wales
National Museum of Wales
Capetown Law Courts, S.Africa

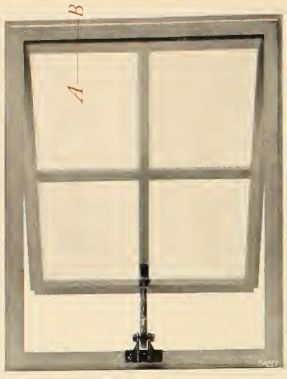
Residences :—

Vice-Regal Lodge, Simla, India
Broome Park, for the late Lord Kitchener of Khartoum
Kilverstone Hall, for Lord Fisher of Kilverstone
Water Palace, Kaliadeh, India, for H.H. The Maharaja Scindia of Gwalior
Baroda Palace, India, for H.H. The Gaekwar of Baroda
Ophir Hall, for the late Honble. Whitelaw-Reid
Munizan, Biarritz, for His Grace The Duke of Westminster
Palacete Prates, Sao Paulo, Brazil
Las Arenas, Spain, for Senor don Victor de Chavarri

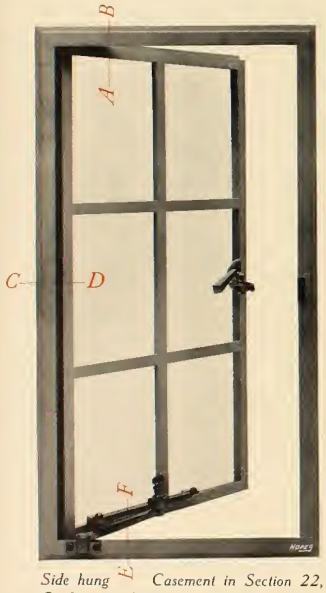
The Finest Buildings throughout the world are fitted with HOPE'S CASEMENTS

HOPE'S

OUTWARD OPENING CASEMENTS



Top hung Casement in Section 22, Quality 1, fitted with Hope's Patent Cam Opener No. 506.



Side hung Casement in Section 22, Quality 1, fitted with Handle 497 on Plate 50 and Stay 223.

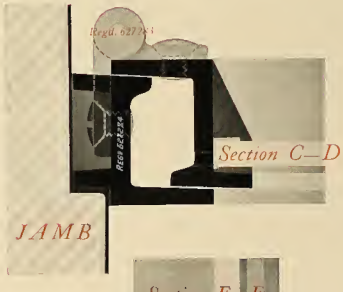
DETAILS FULL SIZE

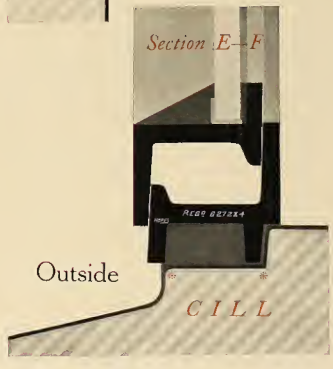
¶ For all casements opening *outwards*, rebates to head, jambs & cills should be *outside* and 3/8 in. deep as detailed.

¶ Instructions for ordering, page 28.

¶ Full specification is given on page 3.

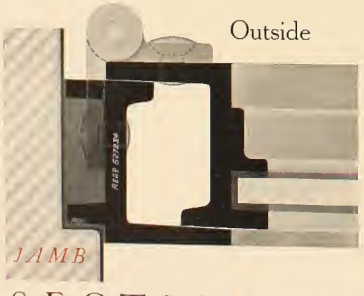
¶ The illustrations shew the casements divided with ⊥ bars, but this is not essential, & casements can be prepared either for single sheets of plate glass or for leaded glass. Metal or hardwood glazing beads are recommended for first-class work.





SECTION · 22 ·

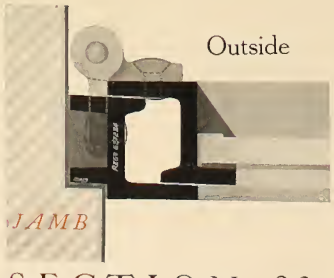
Maximum Height - 6 ft. 0 in.
,, Width - 2 ft. 6 in.



*The cill seating * * for Section 21 should be 1¼ ins.; for Section 22, 1 in. (as shewn); for Section 23, ¾ in. The weathering should be as steep as possible.*

SECTION · 21 ·

Maximum Height - 8 ft. 0 in.
,, Width - 3 ft. 0 in.



SECTION · 23 ·

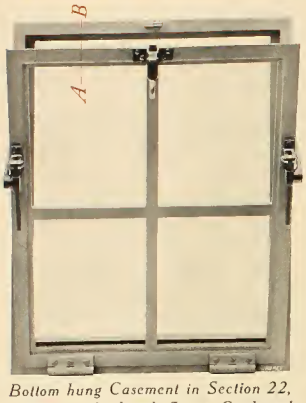
Maximum Height - 5 ft. 0 in.
,, Width - 1 ft. 9 in.

Little Ridge, Tisbury, Wilts. *Detmar Blow, Architect*

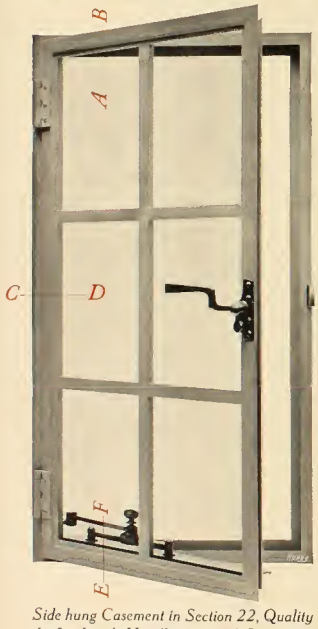
Heale House, Salisbury *Detmar Blow, Architect*

HOPE'S

INWARD OPENING CASEMENTS



Bottom hung Casement in Section 22, Quality 1, fitted with Spring Catch and Hope's Passable Side Arms.



Side hung Casement in Section 22, Quality 1, fitted with Handle 497 and Stay 224.

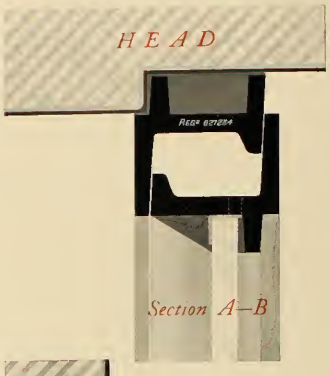
DETAILS FULL SIZE

¶ For all casements opening *inwards*, rebates to head and jambs should be *inside*, and to cill *outside*, and 3/8 in. deep as detailed.

¶ Instructions for ordering, page 28.

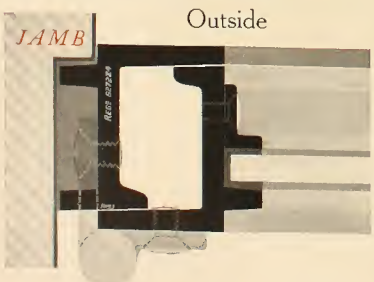
¶ Full specification is given on page 3.

¶ The illustrations shew the casements divided with ⊥ bars, but this is not essential, & casements can be prepared either for single sheets of plate glass or for leaded glass. Metal or hardwood glazing beads are recommended for first-class work.



SECTION · 22 ·

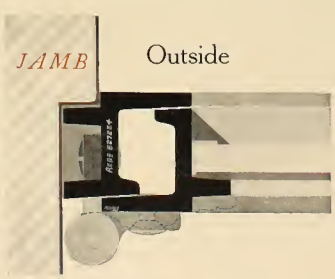
Maximum Height - 6 ft. 0 in.
,, Width - 2 ft. 6 in.



*The cill seating * * for Section 21 should be 1¼ ins.; for Section 22, 1 in. (as shewn); for Section 23, ¾ in. The weathering should be as steep as possible.*

SECTION · 21 ·

Maximum Height - 8 ft. 0 in.
,, Width - 3 ft. 0 in.



SECTION · 23 ·

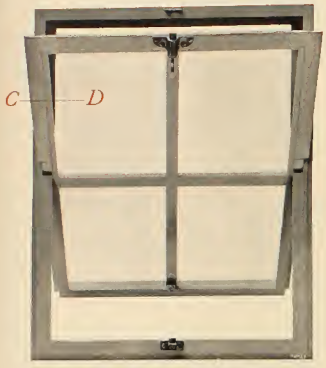
Maximum Height - 5 ft. 0 in.
,, Width - 1 ft. 9 in.

Chapel Cleeve, Somerset — *F. W. Roberts, Architect*

Brackenbrough, Carlisle — *Sir Robert S. Lorimer, Architect*

HOPE'S

CLEANING CASEMENTS on PIVOTS



Swinging Casement in Section 22, Quality 1, fitted with Spring Catch, Cord Eye and Pulley.

Cleaning Casement in Section 22, Quality 1, fitted with Handle 1323 on Plate 1361 and Stay 223.

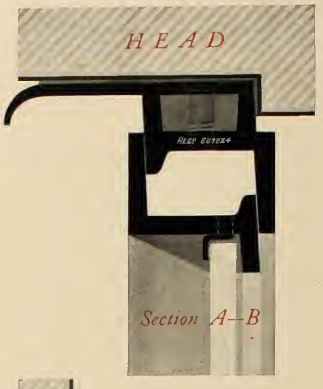
DETAILS FULL SIZE

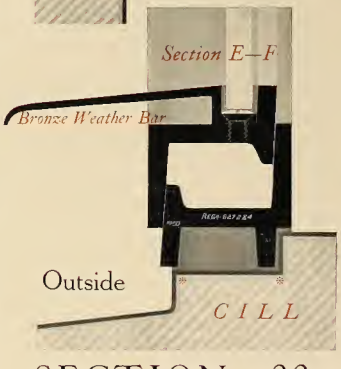
¶ For all *pivotted* casements rebates to head, jambs and cill should be *outside*, and 3/8 in. deep as detailed.

¶ Instructions for ordering, page 28.

¶ Full specification is given on page 3.

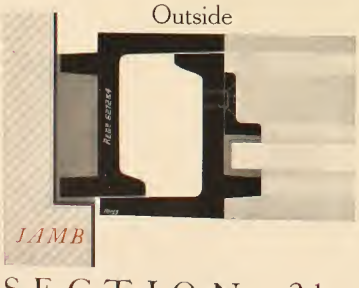
¶ The illustrations shew the casements divided with ⊥ bars, but this is not essential, & casements can be prepared either for single sheets of plate glass or for leaded glass. Metal or hardwood glazing beads are recommended for first-class work.





SECTION · 22 ·

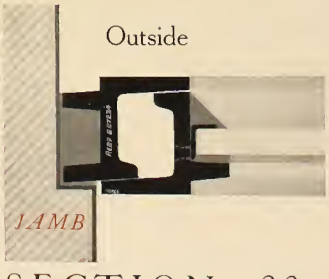
Maximum Height - 6 ft. 0 in.
,, Width - 3 ft. 0 in.



The cill seating ❋ ❋ for Section 21 should be 1¼ ins.; for Section 22, 1 in. (as shewn); for Section 23, ¾ in. The weathering should be as steep as possible.

SECTION · 21 ·

Maximum Height - 8 ft. 0 in.
,, Width - 4 ft. 0 in.



SECTION · 23 ·

Maximum Height - 5 ft. 0 in.
,, Width - 2 ft. 6 in.

H. L. Pratt's Residence
Glen Cove, L. I.

James Brite, Architect

H. L. Pratt's Residence *(Another view)*

HOPE'S

CLEANING · CASEMENTS ON STRAP HINGES

DETAILS
HALF FULL SIZE

INTERIOR VIEW.

EXTERIOR VIEW.

Plan shewing Cleaning Casement when wide open, hung on Hope's improved solid gunmetal strap hinges.

An ordinary Cleaning Casement on pivots is shewn in red for comparison.

¶ This is a modification of our ordinary pattern of cleaning casement, which is hung on central pivots, and illustrated on page 7. The casement is hung on heavy gunmetal strap hinges of improved design, and as will be seen by reference to the diagram, the projection into the room of the inward opening part when wide open does not exceed $2^1/_8$ in., allowing the free use of curtains, blinds or fly-screens, either when closed or when open at any angle. It is impossible to give a less projection into the room than 5 inches with an ordinary cleaning casement without contracting the space for cleaning, which should be not less than 4 inches.

¶ This pattern is more weathertight than the ordinary type, and is, in fact, as weathertight as it is practicable to make casements hung on vertical pivots.

¶ There are no loose pieces; the sections are solid throughout.

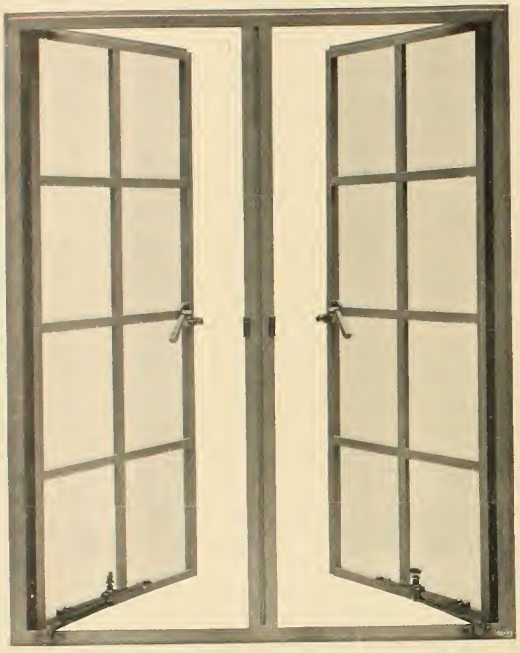
Llangoed Castle, Llyswen
Brecknockshire

C. Williams-Ellis, Architect

Llangoed Castle *(Another view)*

HOPE'S

FRENCH CASEMENTS



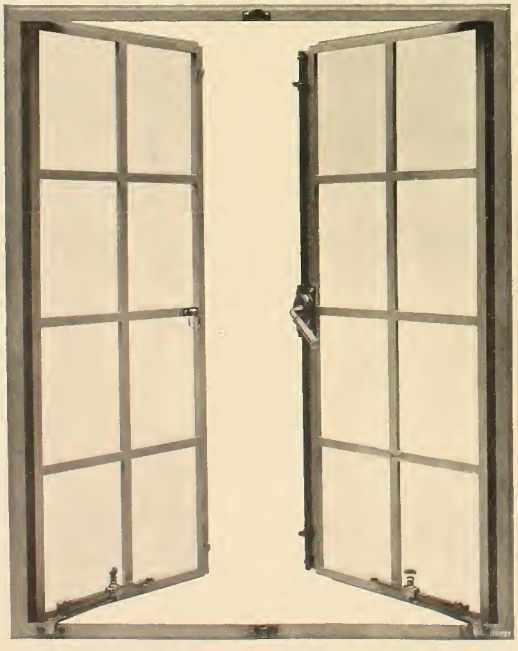
OUTWARD OPENING WITH · MULLION

¶ One pair of French Casements (with mullion), Section 22, Quality 1, fitted with Handle 497 on Plate 50 and Stay 223.

¶ The illustrations shew the casements divided with ⊥ bars, but this is not essential, and casements can be prepared either for single sheets of plate glass or for leaded glass. Metal or hardwood glazing beads are recommended for first-class work.

MAXIMUM · SIZES

Section 21 :
8 ft. 0 in. high × 5 ft. 0 in. wide
Section 22 :
6 ft. 0 in. high × 4 ft. 3 in. wide
Section 23 :
5 ft. 0 in. high × 3 ft. 6 in. wide



OUTWARD OPENING WITHOUT · MULLION

¶ One pair of French Casements (without mullion), Section 22, Quality 1, fitted with Cremorne Bolt 1169 and Stay 223.

NOTE.—French Casements opening out, without mullion, should not be employed above ground floor level. They are dangerous for windows at any height above the ground floor.

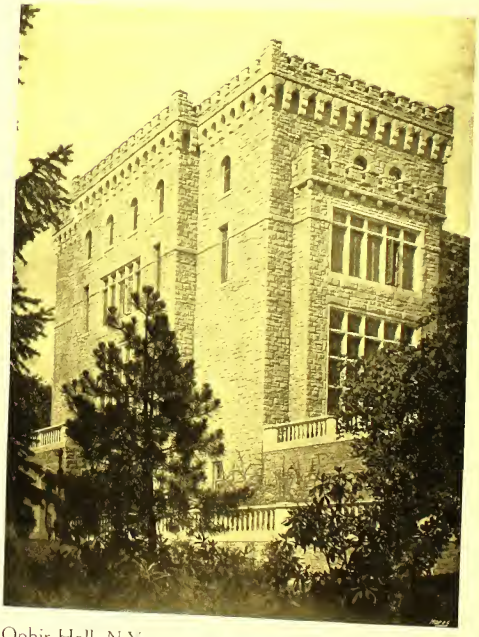
MAXIMUM · SIZES

Section 21 :
8 ft. 0 in. high × 4 ft. 6 in. wide
Section 22 :
6 ft. 0 in. high × 3 ft. 9 in. wide
Section 23 :
5 ft. 0 in. high × 3 ft. 0 in. wide

¶ *For details of jambs, head and cill, see page 5.*

T. C. Dennahy's Residence
Chicago, Ill.

F. W. Perkins, Architect

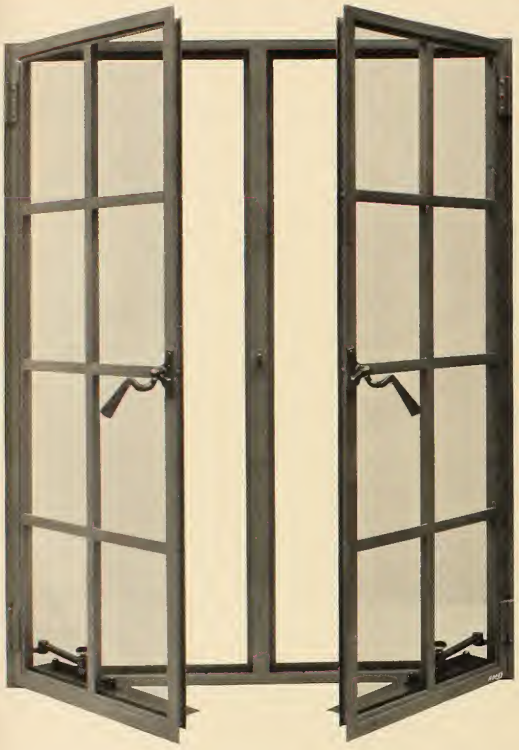


Ophir Hall, N.Y.

McKim, Mead & White, Architects

HOPE'S

FRENCH CASEMENTS



INWARD OPENING WITH · MULLION

¶ One pair of French Casements (with mullion), Section 22, Quality 1, fitted with Handle 497 on Plate 559 and Stay 224.

¶ The illustrations shew the casements divided with ⊥ bars, but this is not essential, and casements can be prepared either for single sheets of plate glass or for leaded glass. Metal or hardwood glazing beads are recommended for first-class work.

MAXIMUM · SIZES

Section 21 :
8 ft. 0 in. high × 5 ft. 0 in. wide
Section 22 :
6 ft. 0 in. high × 4 ft. 3 in. wide
Section 23 :
5 ft. 0 in. high × 3 ft. 6 in. wide

INWARD OPENING WITHOUT · MULLION

¶ One pair of French Casements (without mullion), Section 22, Quality 1, fitted with Cremorne Bolt 1169 and Stay 224.

MAXIMUM · SIZES

Section 21 :
8 ft. 0 in. high × 4 ft. 6 in. wide
Section 22 :
6 ft. 0 in. high × 3 ft. 9 in. wide
Section 23 :
5 ft. 0 in. high × 3 ft. 0 in. wide

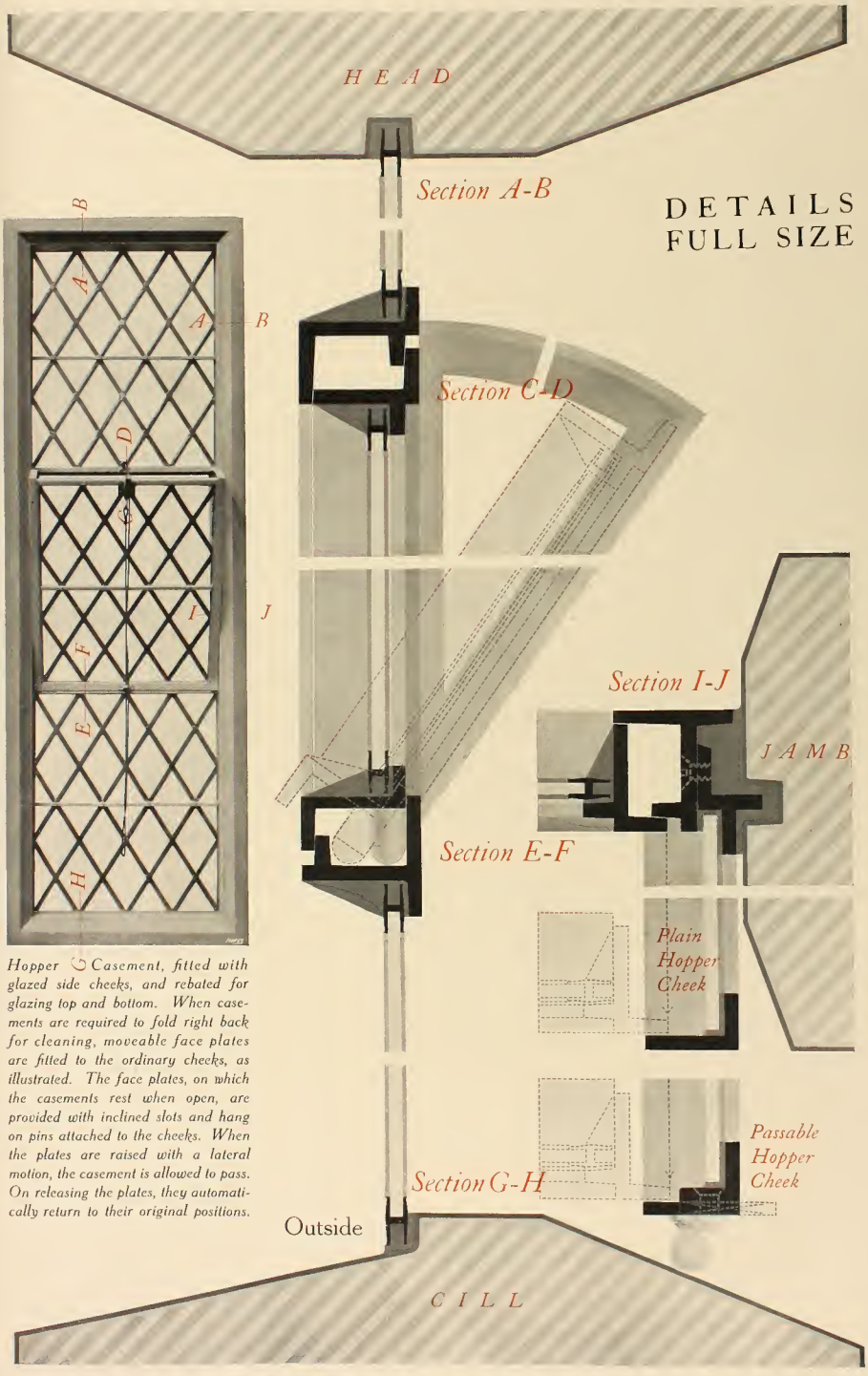
¶ *For details of jambs, head and cill, see page 6.*

Bank of Toronto
Toronto

Carrere & Hastings |
Eustace G. Bird | *Associated Architects*

HOPE'S

HOPPER · CASEMENTS



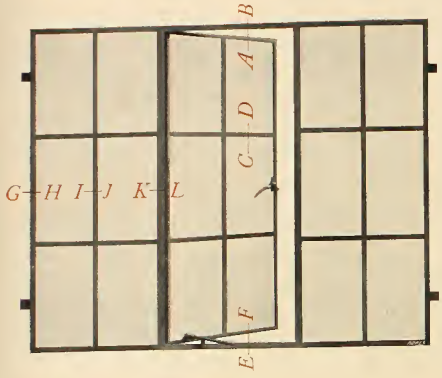
Hopper Casement, fitted with glazed side cheeks, and rebated for glazing top and bottom. When casements are required to fold right back for cleaning, moveable face plates are fitted to the ordinary cheeks, as illustrated. The face plates, on which the casements rest when open, are provided with inclined slots and hang on pins attached to the cheeks. When the plates are raised with a lateral motion, the casement is allowed to pass. On releasing the plates, they automatically return to their original positions.

Blythe Court, Edgbaston — *Buckland & Farmer, Architects*

W. M. C. Kimber's Residence — *Edmund B. Gilchrist, Architect*

HOPE'S

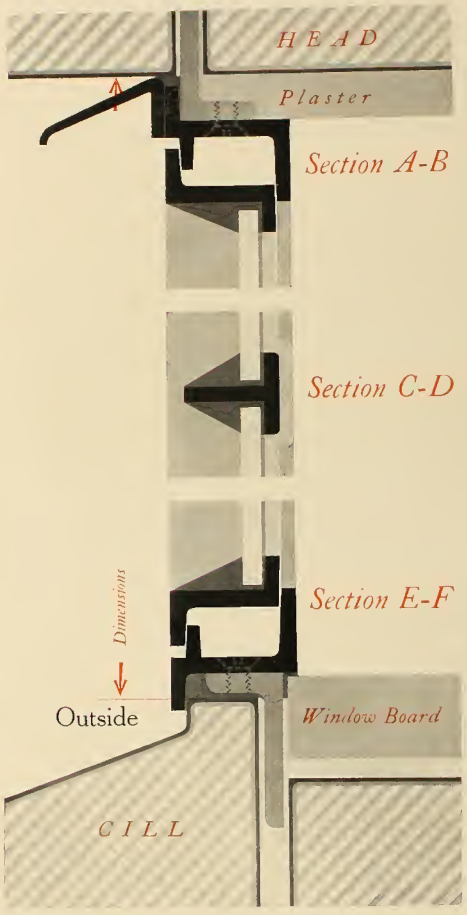
"COTTAGE" · WINDOWS



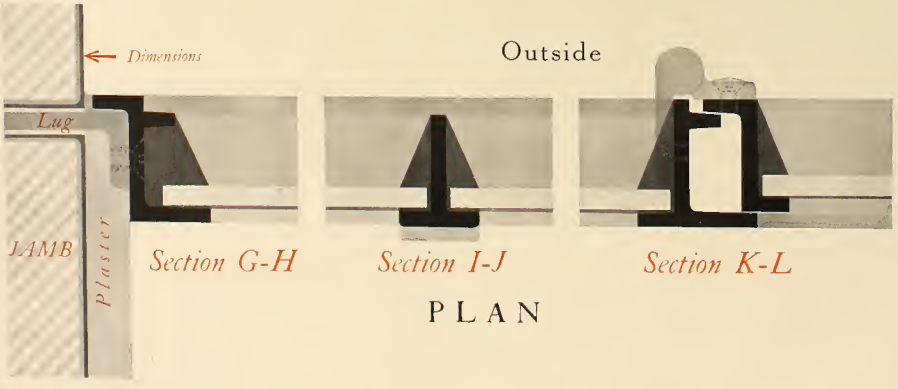
HOPE'S "COTTAGE" WINDOW has been designed to meet a growing demand for a cheap and yet weather-tight window for artisan's dwellings. It is applicable to brick or concrete jambs, and provides for either internal or external plaster finish, or both. The casements are double weathered, with substantial iron fittings.

The illustration shews a three-light window, with central side hung casement, 4 ft. high by 5 ft. wide, and is typical of size and type which will be found generally useful for living rooms and bedrooms of cottages.

Where it is desired to reduce cost to the lowest possible limits, we recommend the omission of the vertical astragals. The use of these windows in a brick or concrete cottage gives a fireproof and durable construction with considerable saving in annual repairs.



VERTICAL · SECTION



PLAN

N.B.—This type of window is made to any size or shape required for cottages, and for any size pane of glass. The casements may be either side hung or top hung, to open out.

Dr. Walter Wickes' Residence
Baltimore, Md.

Smith & May, Architects

H. K. Wicks' Residence
Youngstown, Ohio

Abram Garfield, Architect

HOPE'S DETAILS *of* FLY SCREENS

DETAIL No. 1.

OUTWARD CASEMENTS
with interior screens

Detail No. 1 shews solid rebated mullioned window without interior trim, prepared for outward opening casements, and with rebates on inside for fly-screens, which may be made to slide as shewn, or hinged to open in as in detail No. 2. Both schemes provide for removal in winter.

Detail No. 2 shews the same fly-screen arrangement applied to stone mullioned window with interior wood trim.

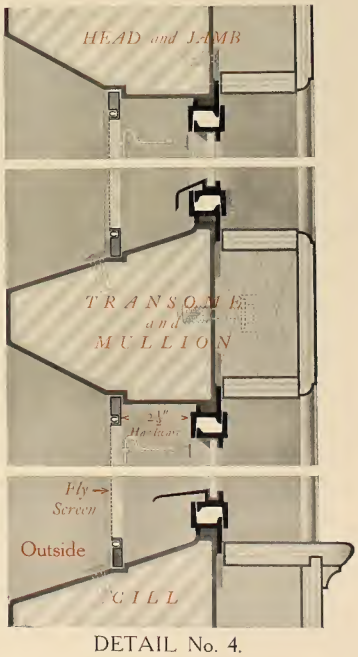
DETAIL No. 2.

DETAIL No. 3.

INWARD CASEMENTS
with exterior screens

Detail No. 3 shews solid rebated mullioned window prepared for inward opening casements, with rebates on outside for fly-screens, which may be fixed either with thumbscrews or cabin hooks for easy removal in winter.

Detail No. 4 shews the same fly-screen arrangement applied to stone mullioned window with interior wood trim.



DETAIL No. 4.

DETAILS QUARTER FULL SIZE.

Details Nos. 1 and 3 shew traditional solid rebated mullioned window with stone finish outside and inside. Details Nos. 2 and 4 shew mullioned window with interior wood trim, suitable for very cold climates. Hope's casements for this construction are supplied with their patented solid flanged frames, which form weather check, and make wood trim secure against leakage. The wood trim should be applied after the casements are set and glazed.

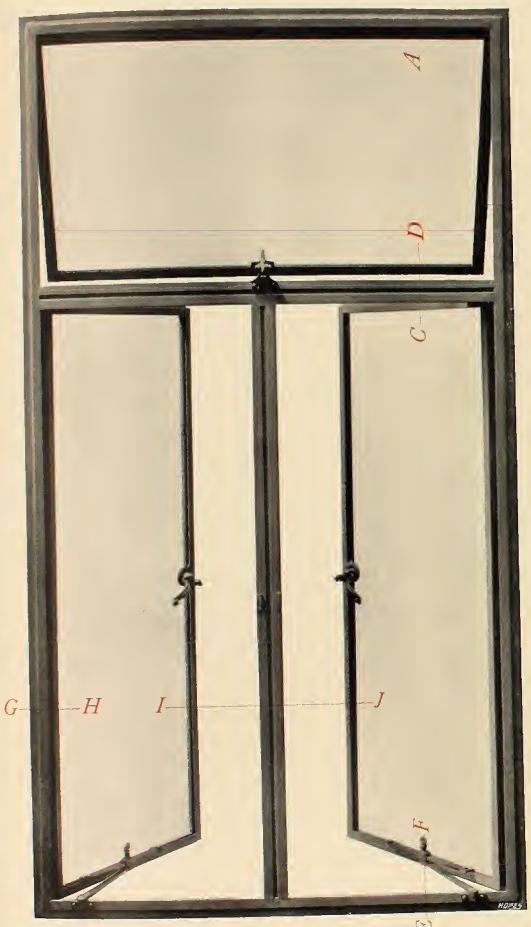
Excelsior Life Building, Toronto

E. J. Lennox, Architect

HOPE'S

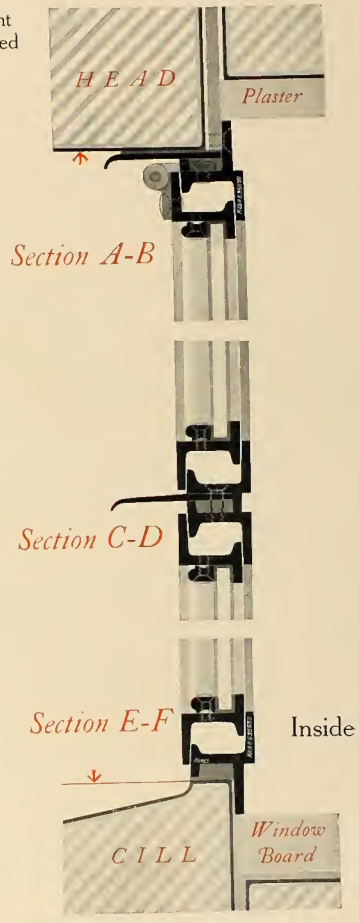
COMPOSITE OFFICE WINDOWS

Design Z · Section 22 · DETAILS HALF FULL SIZE

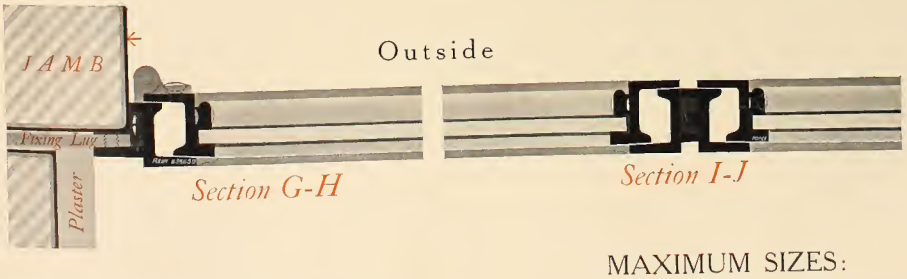


Hope's Office Window with two side hung casements and fixed mullion, and one top hung casement above transome, Section 22, Quality 1, fitted with Handle 1322 on Plate 1362 and Stay 223; Patent Cam Opener to transome light.

Patent applied for.



NOTE.—The construction is solid throughout. The frame is in one piece, with all joints welded.



¶ DIMENSIONS for this type of window should be given in clear of opening as shewn by red arrows on the detail.

MAXIMUM SIZES:

Section 21 = 10 ft. 0 in. × 5 ft. 0 in.
Section 22 = 8 ft. 0 in. × 4 ft. 0 in.
Section 23 = 7 ft. 0 in. × 3 ft. 6 in.

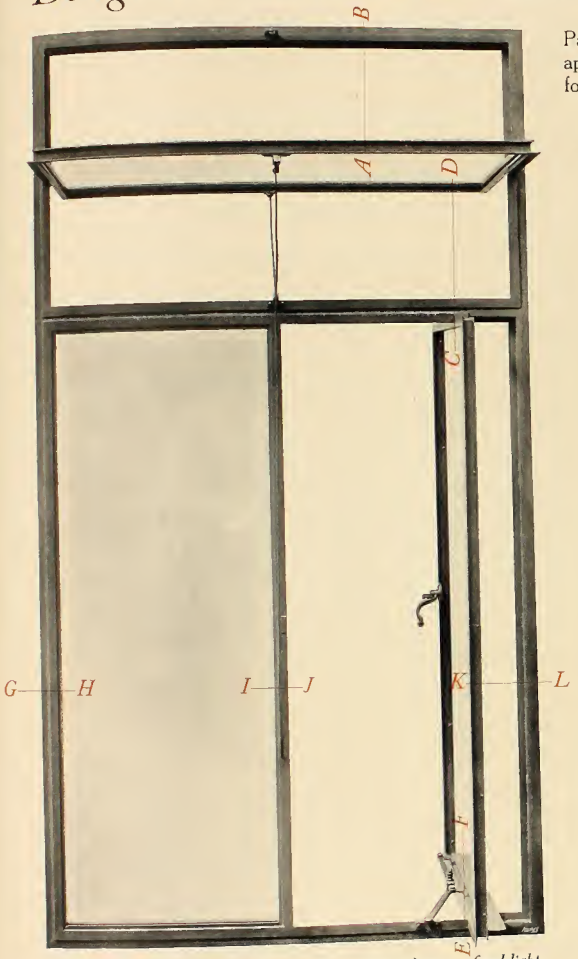
London County Hall

Ralph Knott, Architect

HOPE'S

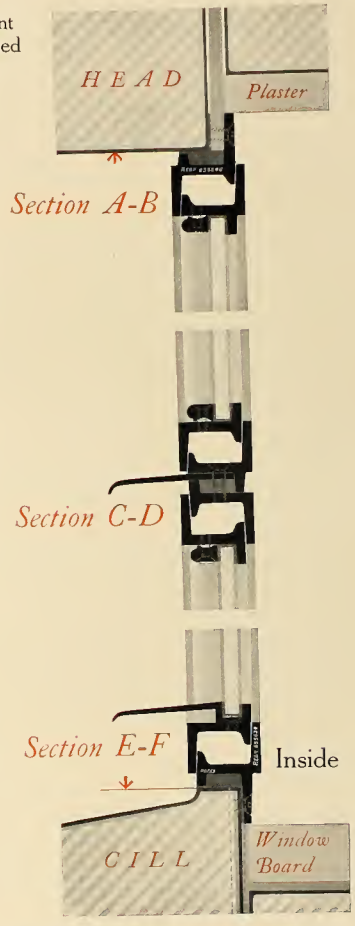
COMPOSITE OFFICE WINDOWS

Design Y · Section 22 · DETAILS HALF FULL SIZE

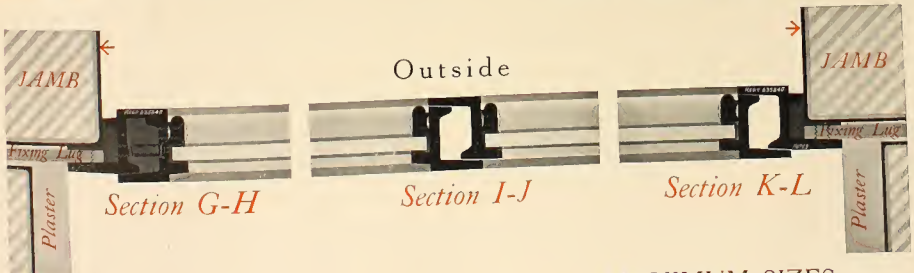


Hope's Office Window with one cleaning casement and one fixed light, and swinging casement above transome, Section 22, Quality 1, fitted with Handle 1393 on Plate 50 and Stay 223; Spring Catch and Pulley to transome light.

Patent applied for.



NOTE.—The construction is solid throughout. The frame is in one piece, with all joints welded.



¶ DIMENSIONS for this type of window should be given in clear of opening as shewn by red arrows on the detail.

MAXIMUM SIZES:

Section 21 = 10 ft. 0 in. × 5 ft. 0 in.
Section 22 = 8 ft. 0 in. × 4 ft. 0 in.
Section 23 = 7 ft. 0 in. × 3 ft. 6 in.

Ida Noyes' Hall
Chicago University

Coolidge & Hodgson, Architects

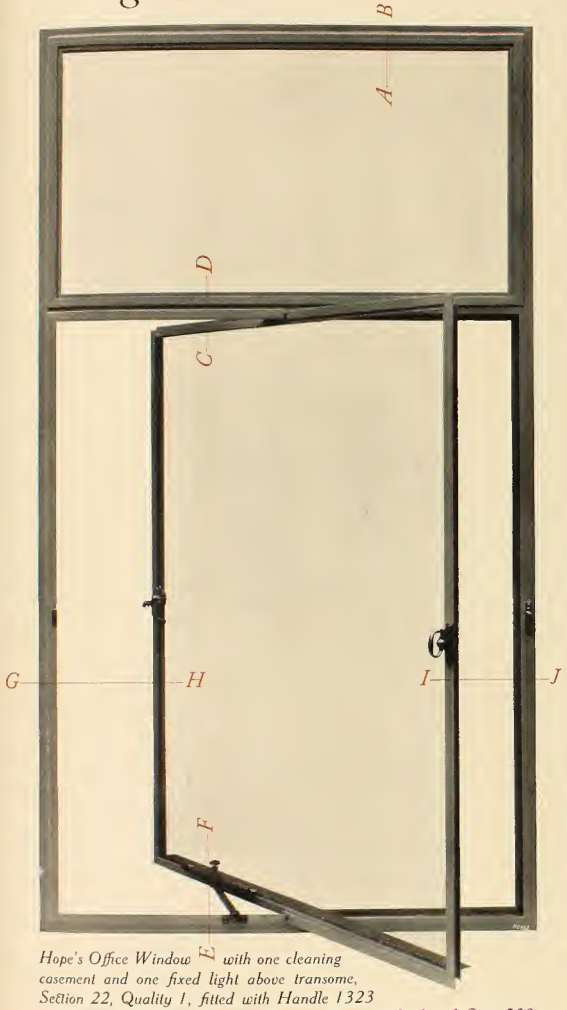
Women's College
Montgomery, Ala.

Warren & Smith, Architects

HOPE'S

COMPOSITE OFFICE WINDOWS

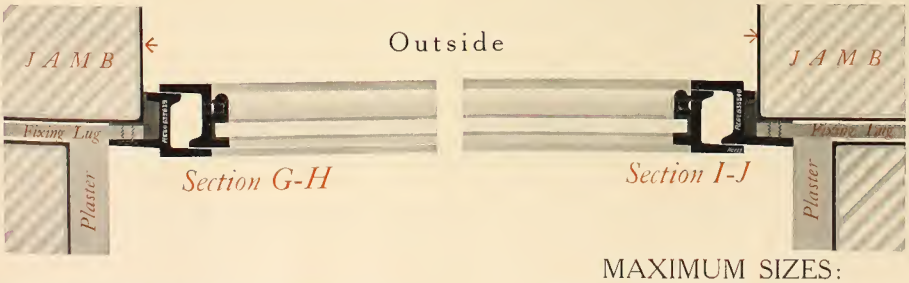
Design X · Section 22 · DETAILS HALF FULL SIZE



Hope's Office Window with one cleaning casement and one fixed light above transome, Section 22, Quality 1, fitted with Handle 1323 on Plate 1362; Bow Handle on inward opening leaf and Stay 223.

Patent applied for.

NOTE.—The construction is solid throughout. The frame is in one piece, with all joints welded.



¶ DIMENSIONS for this type of window should be given in clear of opening as shewn by red arrows on the detail.

MAXIMUM SIZES:

Section 21 = 9 ft. 0 in. × 4 ft. 6 in.
Section 22 = 7 ft. 0 in. × 3 ft. 6 in.
Section 23 = 6 ft. 0 in. × 2 ft. 6 in.

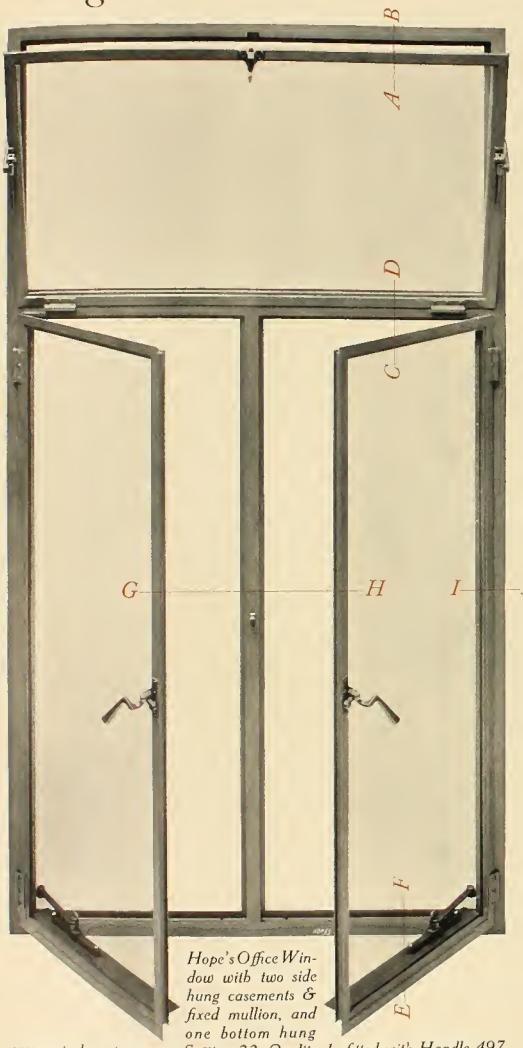
National Library of Wales
Aberystwyth

Sidney K. Greenslade, Architect

HOPE'S

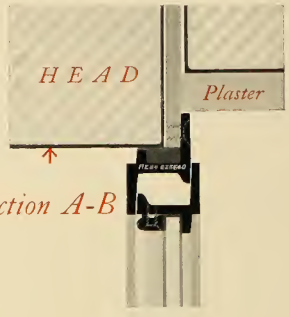
COMPOSITE OFFICE WINDOWS

Design W · Section 22 · DETAILS HALF FULL SIZE



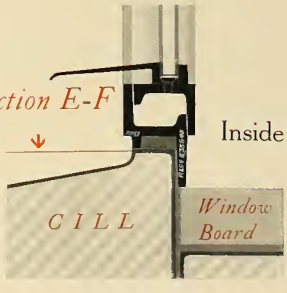
Hope's Office Window with two side hung casements & fixed mullion, and one bottom hung casement above transome, Section 22, Quality 1, fitted with Handle 497 on Plate 559 and Stay 224; Spring Catch and Patent Passable Side Arms to transome light.

Patent applied for.



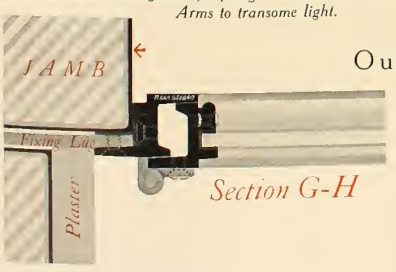
Section A-B

Section C-D



Section E-F

NOTE.—The construction is solid throughout. The frame is in one piece, with all joints welded.



Outside

Section G-H

Section I-J

¶ DIMENSIONS for this type of window should be given in clear of opening as shewn by red arrows on the detail.

MAXIMUM SIZES:

Section 21 = 10 ft. 0 in. × 5 ft. 0 in.
Section 22 = 8 ft. 0 in. × 4 ft. 0 in.
Section 23 = 7 ft. 0 in. × 3 ft. 6 in.

Middlesex Guildhall
Westminster

Gibson, Skipwith & Gordon, Architects

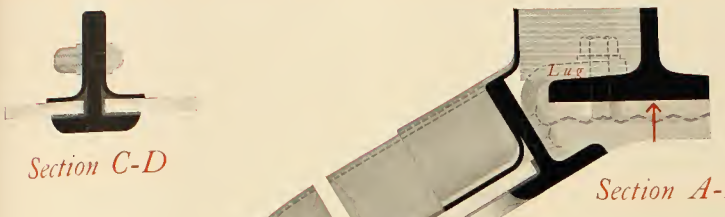
Coventry Council House

Garratt & Simister, Architects

HOPE'S

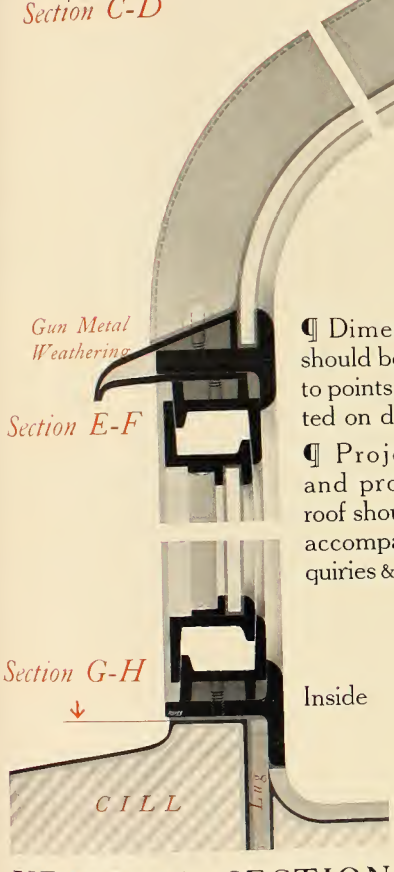
OPERATING ROOM WINDOWS

DETAILS
HALF
FULL
SIZE



Section C-D

Section A-B

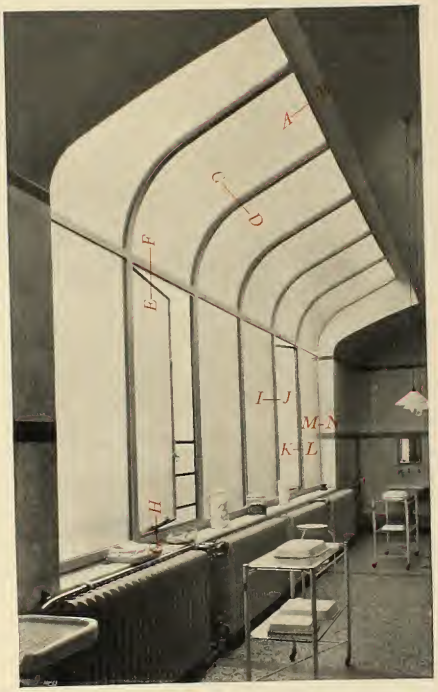


¶ Dimensions should be given to points indicated on details.

¶ Projection and profile of roof should also accompany enquiries & orders.

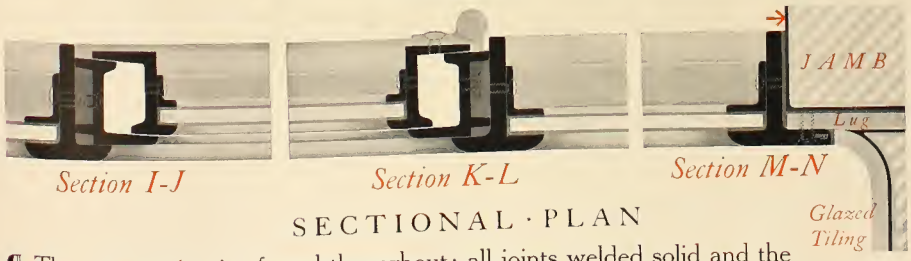
Inside

VERTICAL · SECTION



One of the Operating Rooms, Royal Infirmary, Sheffield. Hadfield & Hadfield, Architects.

Outside



Section I-J

Section K-L

Section M-N

SECTIONAL · PLAN

¶ The construction is of steel throughout; all joints welded solid and the edges and internal angles rounded. The opening casements are airtight when closed, and by their large size allow for the immediate admission of a large volume of fresh air when required. Detail drawings and estimates for operation room windows to meet all conditions will be forwarded on application.

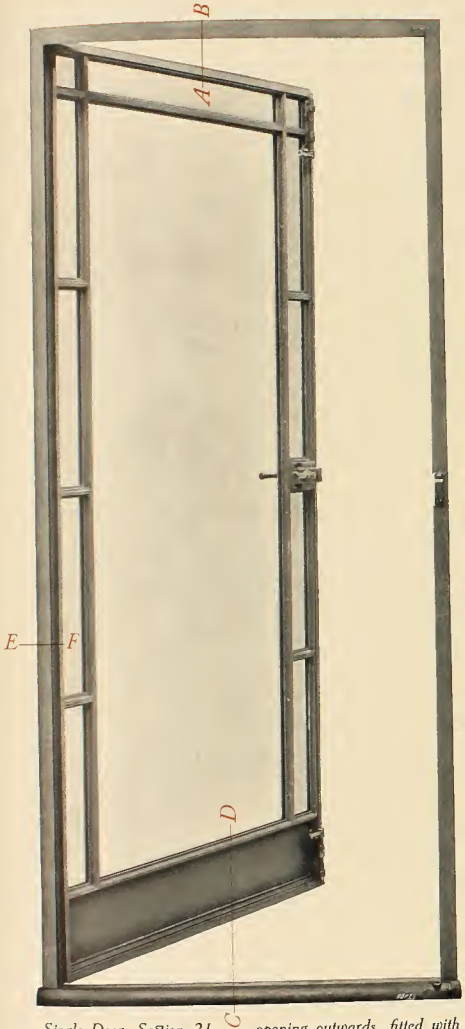
Craig-y-Parc, Pentyrch
Glamorganshire

C. E. Mallows, Architect

Craig-y-Parc *(Another view)*

HOPE'S

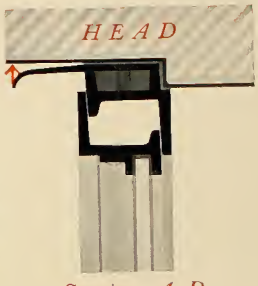
SINGLE and FOLDING DOORS



Single Door, Section 21, opening outwards, fitted with solid bronze lock, with Handles on both sides (to lock from inside only), and special bronze threshold. Locks fitted with keys to lock on either side are supplied when required.

DETAILS
HALF
FULL
SIZE

¶ Rebates to head and jambs must be *inside* for doors opening inwards.



Section A-B

DETAIL *of* LOCK

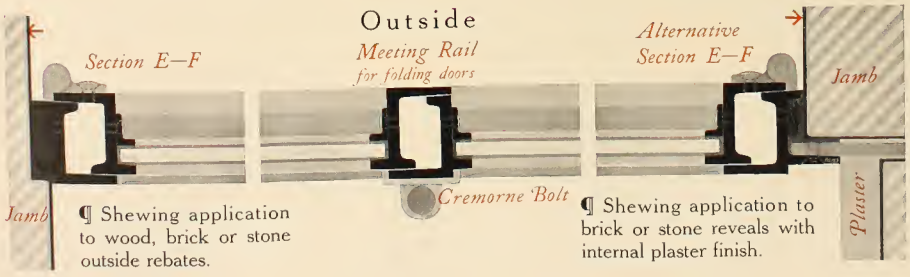
¶ Single Doors are made to open inwards or outwards up to 9 ft. by 3 ft.

¶ Double Doors are made folding, without mullion, to open inwards or outwards up to 9 ft. by 5 ft.

¶ Dimensions should be given to points indicated by red arrows.

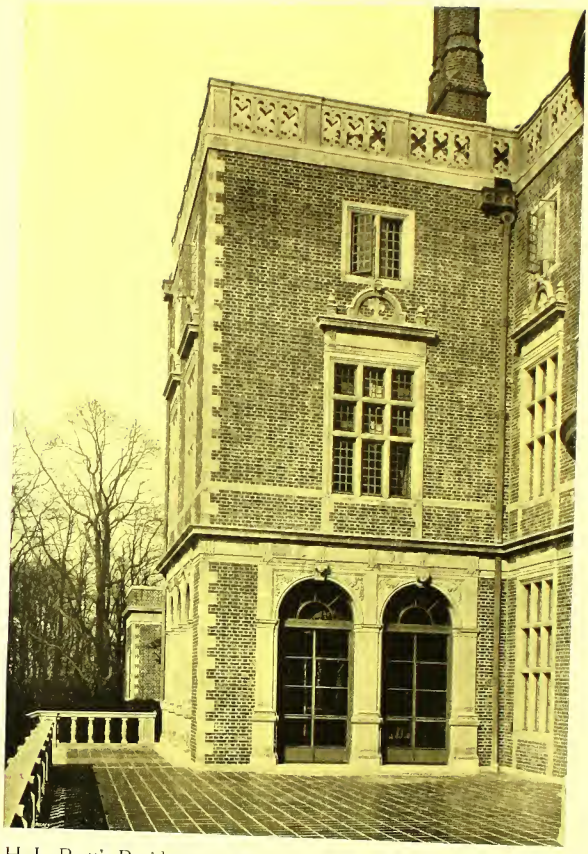
Section C-D

VERTICAL
SECTION



¶ Shewing application to wood, brick or stone outside rebates.

¶ Shewing application to brick or stone reveals with internal plaster finish.



H. L. Pratt's Residence
Glen Cove, L.I.

James Brite, Architect

HOPE'S
STANDARD·HARDWARE
Specification

Our Standard Hardware is made in two qualities. Quality 1 is made of solid bronze, and Quality 2 of iron. All working parts are accurately machined to gauge.
Bronze fittings are polished and toned to a nut brown colour; iron fittings are rust-proofed and blacked.

Bronze Hardware. All bronze castings are made in our own foundry, of an alloy of best selected copper, tin and spelter, to the British Naval Specification. The uniform colour and strength of our bronze castings are due to the purity of our alloy: no scrap or inferior metal is used.
Stay bars, weather bars, bolt rods, etc., are made of extruded Manganese bronze.

Iron Hardware. Most of our patterns are of hand-forged wrought iron, but we employ malleable iron of best quality in a few patterns which do not lend themselves to forging.
All handle plates, stay brackets, etc., are drop-forged mild steel. In no case is malleable iron employed to imitate blacksmith's work.

Special Hand-Forged Hardware. On pages 25 and 26 we illustrate a number of fittings of traditional character, and while these do not afford the same practical advantages of ease and variety of adjustment which are given by our Standard Hardware, they are thoroughly well-made and are recommended as the best possible fittings of their class. The designs are either based upon old examples, or are produced in the same spirit.

NOTE.—The fittings illustrated in this catalogue are only supplied with our Metal Casements. A special catalogue of Hardware for Wooden Casements will be sent on application.

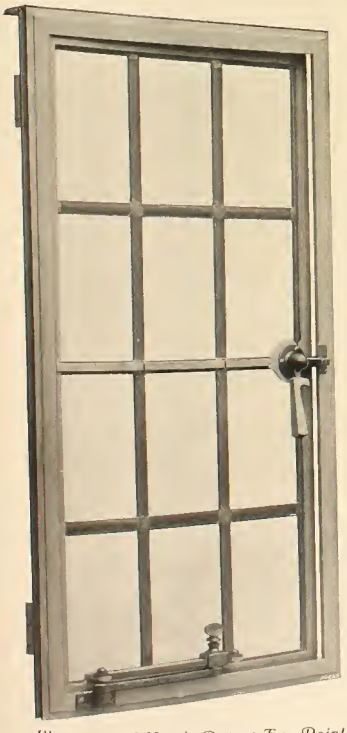


Illustration of Hope's Patent Two-Point Handle holding a casement open one quarter of an inch for ventilation.

PATENT TWO-POINT HANDLE

¶ A perfect casement should be weather-tight when closed, and made to set open for ventilation at any angle without rattling. The stays should not project into the room more than 2½ in.

¶ Hope's equipment, including their patent Two-Point Handle and Stay 223, alone provides this ideal of casement perfection.

¶ All casements Quality 1 are fitted with these devices (see illustrations), and Architects who wish to be assured of their clients' satisfaction should specify Hope's without any qualification which would allow of the substitution of inferior makes.

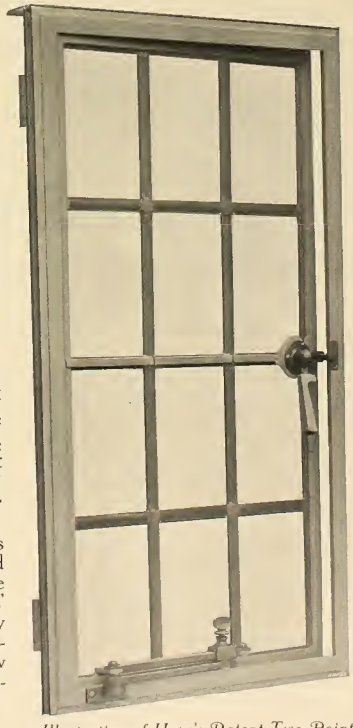


Illustration of Hope's Patent Two-Point Handle holding a casement open one inch for ventilation.

Mounton House, Chepstow
Monmouthshire

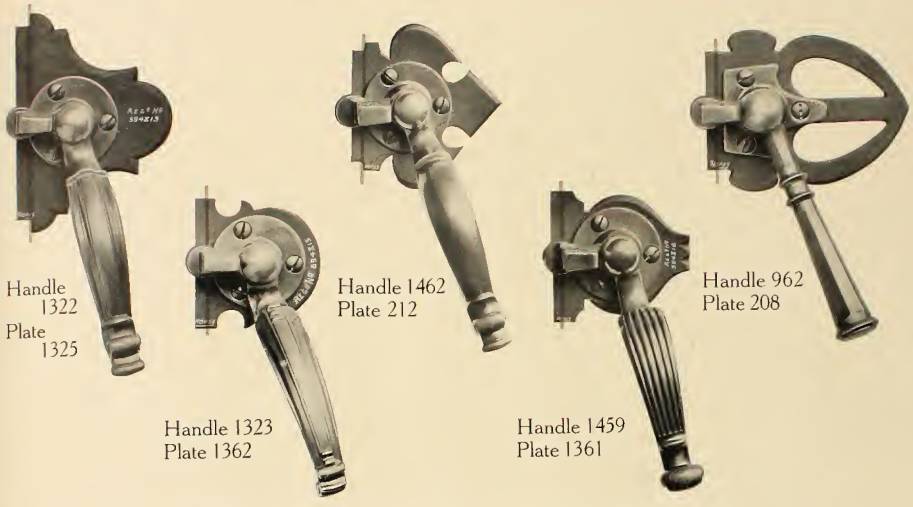
H. Avray Tipping, Architect

Mounton House *(Another view)*

HOPE'S

STANDARD · HARDWARE

HANDLES *made only of* BRONZE.



Handle 1322
Plate 1325

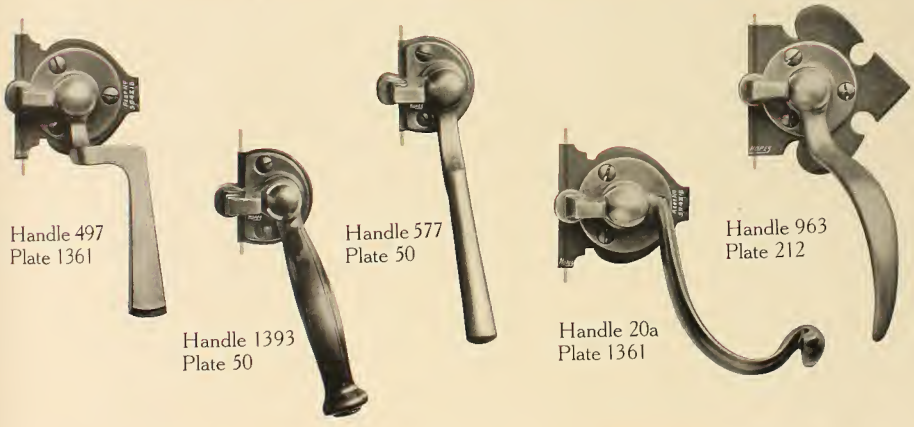
Handle 1323
Plate 1362

Handle 1462
Plate 212

Handle 1459
Plate 1361

Handle 962
Plate 208

HANDLES *made of* BRONZE *or* IRON.



Handle 497
Plate 1361

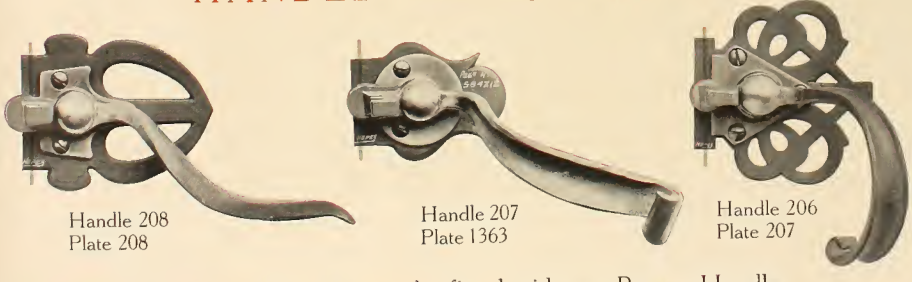
Handle 1393
Plate 50

Handle 577
Plate 50

Handle 20a
Plate 1361

Handle 963
Plate 212

HANDLES *made only of* IRON.



Handle 208
Plate 208

Handle 207
Plate 1363

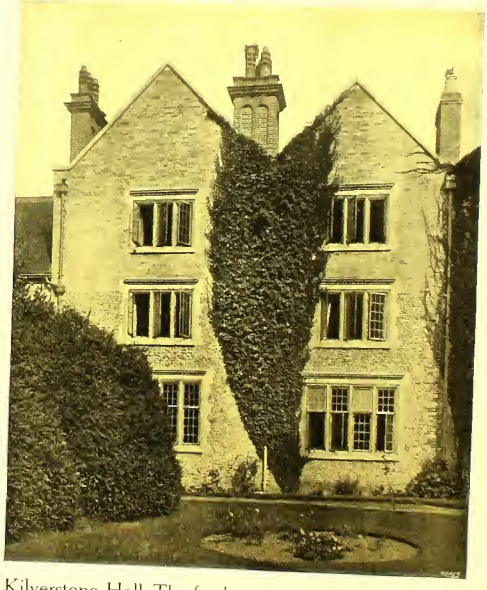
Handle 206
Plate 207

Casements of Qualities 1 and 1a may be fitted with any Bronze Handle.
Casements of Quality 2 may be fitted with any Iron Handle.
Any of the Handles may be combined with any of the Plates illustrated.

ILLUSTRATIONS ARE ALL ABOUT HALF FULL SIZE.

The Homestead, Disley
Cheshire

Detmar Blow
Fernand Billerey | *Architects*



Kilverstone Hall, Thetford
Norfolk

J. S. Corder, Architect

HOPE'S

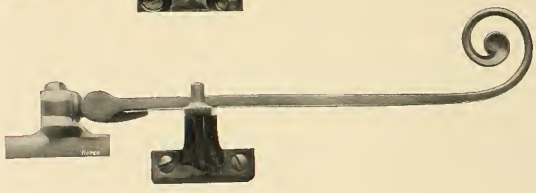
STANDARD · HARDWARE

PEG STAYS *made of* BRONZE *or* IRON.

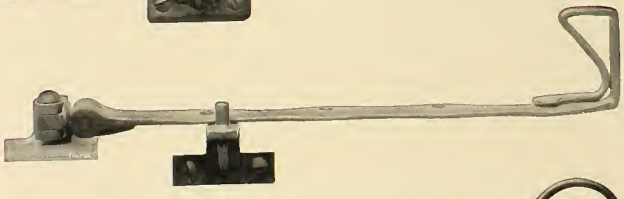
No. 1367

No. 218

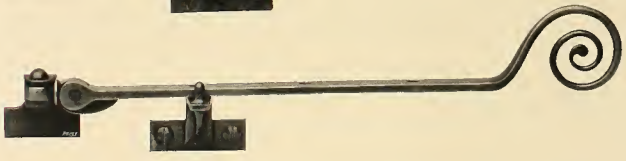
No. 226



No. 219



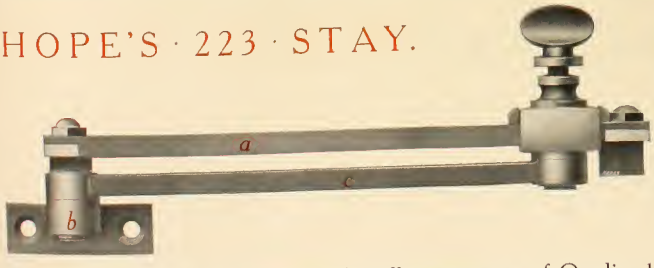
No. 385
Only made of wrought iron.



No. 1552

¶ *HOPE'S Peg Stays are all provided with combined pin and rest.* All are supplied in solid bronze for top hung casements, Quality 1, and may be used instead of our standard Stay 223 for side hung or cleaning casements of Quality 1 at a reduction of 50 cents per casement. For Quality 2 the same Stays are supplied in iron.

HOPE'S · 223 · STAY.



¶ The box, screw, friction plate, bar *(a)*, all set screws and bearing pins are of solid bronze. The bracket *(b)* and bar *(c)* are of polished and rustproofed iron, finished black.

¶ This is our standard pattern for all casements of Quality 1. It holds the casement quite rigidly, and does not project into the room at any angle of opening.
For Quality 1a, the bar *(a)* and bracket *(b)* are made of solid bronze.

Martha Cook Dormitory
Michigan University

York & Sawyer, Architects

John Sherman Hoyt's Residence
New York

Howells & Stokes, Architects

(Hope's lead leaders and heads, also dormers and crestings, supplied to this house.)

HOPE'S

STANDARD · HARDWARE

DOUBLE *and* TREBLE GRIP BOLTS.

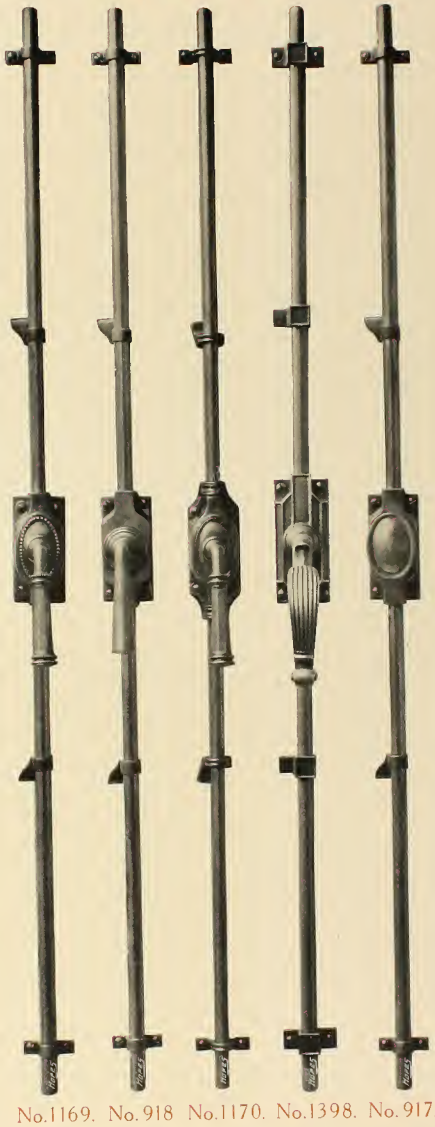
No. 1. No. 2. No. 3.

¶ No. 1. Double Grip Bolt, applied to outward opening casements over 5 ft. high. The handle is usually placed about 15 in. above the cill.

¶ No. 2. Treble Grip Bolt, applied to casements over 7 ft. high. Handle may be placed at the bottom of the bolt if required.

¶ No. 3. Double Grip Bolt, applied to inward opening casements over 5 ft. high.

CREMORNE BOLTS.



No. 1169. No. 918 No. 1170. No. 1398. No. 917.

¶ These bolts are fitted to all French Casements, opening outwards or inwards (without mullion), over 4 ft. 6 in. high. They have stout round rods of drawn bronze, with case, handle and guides of fine cast bronze, polished and finished to a nut brown tone. The handles may be below the centre, if necessary, to place them within reach.

Arkinglass, Ayrshire — *Sir Robert S. Lorimer, Architect*

Rowallan, Ayrshire — *Sir Robert S. Lorimer, Architect*

HOPE'S

TRANSOME · HARDWARE

No. 1360

HOPE'S PATENT PASSABLE SIDE ARMS No. 1360

¶ Fitted to all bottom hung casements of Quality 1. Perfectly safe in action; no loose parts. It is only necessary to lift the arms while the casement is closed, as shewn on right hand of photograph, to make the casement free to be opened right back for cleaning.

No. 502

HOPE'S No. 502 OPENER

¶ Operated with cord. Does not project from inside face of frame more than $2\frac{1}{8}$ ins. in any position. Maximum opening, $6\frac{1}{2}$ inches.

This Opener is not suitable for casements more than 18 inches wide.

No. 506

HOPE'S PATENT "CAM" OPENER No. 506

¶ Operated by hand or window stick. Made in four sizes, ranging from 6 ins. maximum opening to 12 ins., each with intermediate notches about 3 ins. apart. Projection from inside face of frame when closed = $1\frac{3}{4}$ ins.

We recommend this fitting for all top hung casements. It is simple in action, and holds the casement securely when closed.

ILLUSTRATIONS ARE APPROXIMATELY ONE-SIXTH FULL SIZE.

Brinsop Court, Herefordshire — *H. Avray Tipping, Architect*

Bolebroke, Sussex — *H. Avray Tipping, Architect*

HOPE'S

"TUDOR" CASEMENT

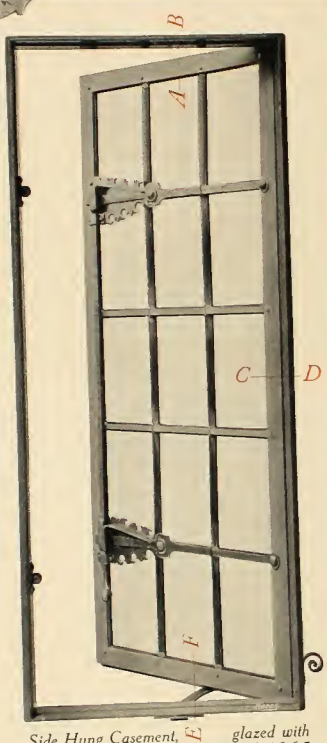
DETAILS HALF FULL SIZE

LATCH No. 1365

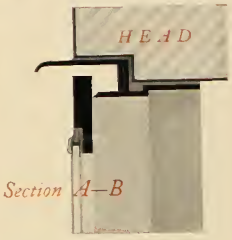
¶ Made of charcoal iron, hand forged and finished black or bright.

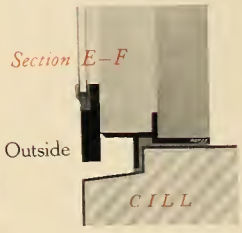
¶ This Latch is self locking, and only requires a gentle slam when closing the casement.

¶ The quadrant is a spring upon which the casement takes its bearing. The top of the quadrant is tinned and a bronze friction piece is brazed into the bottom of casement to give a rustless contact.



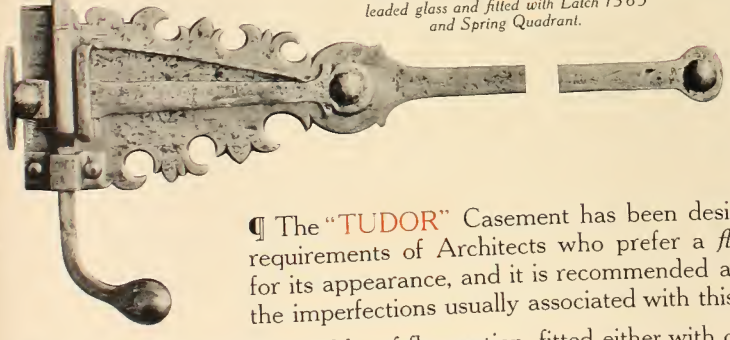
Side Hung Casement, E F glazed with leaded glass and fitted with Latch 1365 and Spring Quadrant.





Maximum Height 4' 0"
" Width 1' 6"

Rebates to head, jambs and cills should be outside and 1⅛ in. by ½ in. deep as detailed.



¶ The "TUDOR" Casement has been designed to meet the requirements of Architects who prefer a *flat iron* casement for its appearance, and it is recommended as being free from the imperfections usually associated with this type of window.

¶ We supply it in various widths of flat section, fitted either with our standard hardware or with special forged iron fittings, as illustrated on page 26 or on this page. It is a complete Casement and Frame, perfectly fitted and finished in our workshops, and prepared for setting by screws which pass into the heart of the mullion and jambs. Those who have experienced the difficulty of plugging the edge of stone or brickwork for hinges and loose slips, will appreciate the solidity of the "Tudor" setting.

¶ *Flat iron casements are only supplied in conjunction with leaded glass, the leaded lights being soldered and cemented to the casements before leaving the works, and allowed time to set before delivery.*

Anderson Manor, Blandford
Dorset

Restoration by
P. Morley Horder, Architect

Anderson Manor *(Another view)*

HOPE'S

STANDARD · HARDWARE

DOUBLE *and* TREBLE GRIP BOLTS.

No. 1. No. 2. No. 3.

¶ No. 1. Double Grip Bolt, applied to outward opening casements over 5 ft. high. The handle is usually placed about 15 in. above the cill.

¶ No. 2. Treble Grip Bolt, applied to casements over 7 ft. high. Handle may be placed at the bottom of the bolt if required.

¶ No. 3. Double Grip Bolt, applied to inward opening casements over 5 ft. high.

CREMORNE BOLTS.

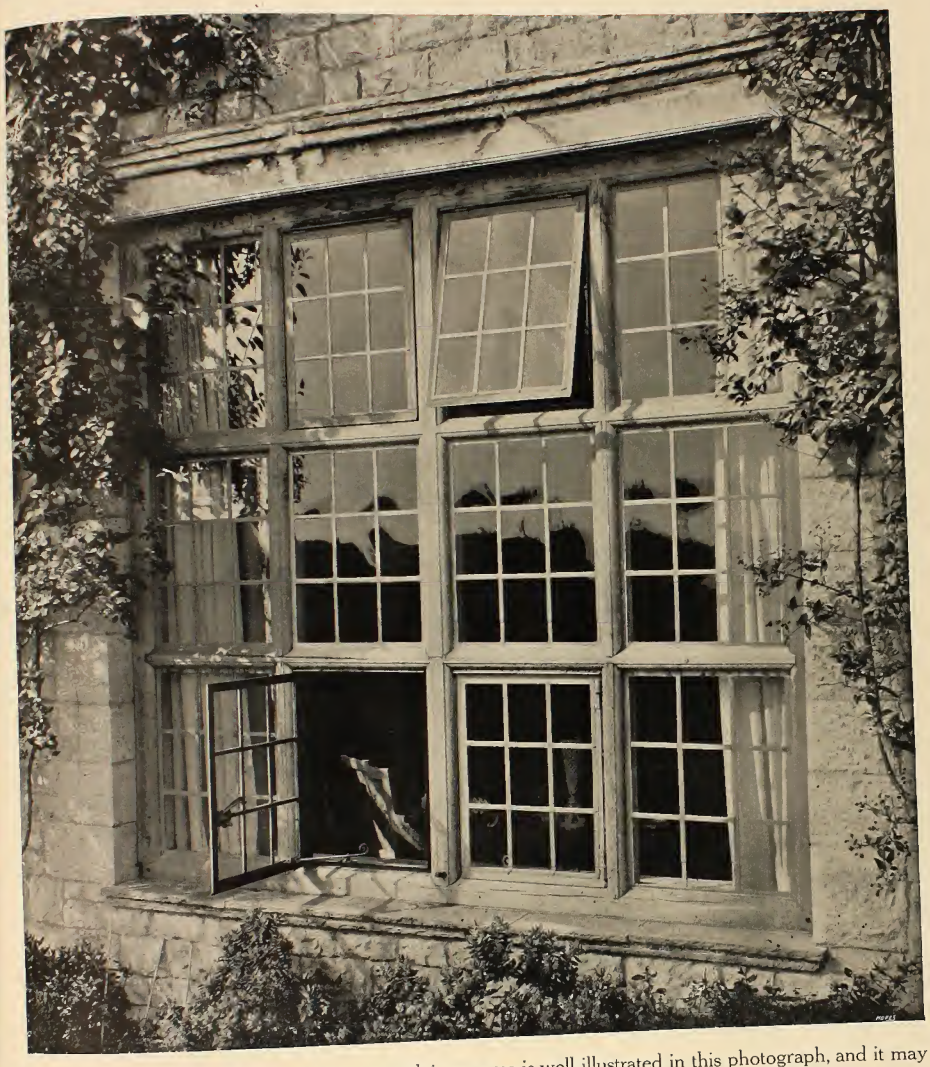
No.1169. No. 918 No.1170. No.1398. No. 917.

¶ These bolts are fitted to all French Casements, opening outwards or inwards (without mullion), over 4 ft. 6 in. high. They have stout round rods of drawn bronze, with case, handle and guides of fine cast bronze, polished and finished to a nut brown tone. The handles may be below the centre, if necessary, to place them within reach.

Arkinglass, Ayrshire — *Sir Robert S. Lorimer, Architect*

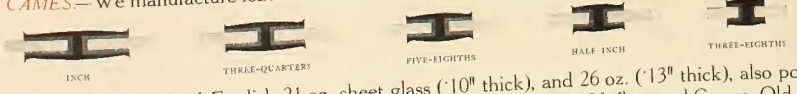
Rowallan, Ayrshire — *Sir Robert S. Lorimer, Architect*

HOPE'S *LEADED·GLASS*



The architectural value of leaded glazing in plain squares is well illustrated in this photograph, and it may be granted that plain square glazing is an admirable treatment for mullioned windows. To obtain the best results, however, it is necessary to determine the size of pane before determining the size of window openings, as only by this means can the proportion of the windows above and below transome be determined correctly.

LEAD CAMES.—We manufacture lead cames for all thicknesses of glass, and of widths as shewn in sections:



GLASS.—We keep a stock of English 21 oz. sheet glass (·10" thick), and 26 oz. (·13" thick), also polished plate, $^1/_8$", $^3/_{16}$" and $^1/_4$" in thickness. We also keep Antique, Norman Slabs, Unflattened Crown, Old Dutch glass, Ambetti, etc. The window illustrated is glazed with Unflattened Crown, and the photograph shews the play of light on the convex surfaces.

All our leaded glass is made in the best manner, by skilled workmen, thoroughly well cemented and soldered on both sides, and provided with copper ties for saddle bars.

Illustrated catalogue of Leaded Glazing, shewing a variety of designs, will be sent on application.

George D. Pratt's Residence
Long Island

Trowbridge & Ackerman, Architects

George D. Pratt's Residence *(Another view)*

HOPE'S

Instructions for ORDERING Casements

The following particulars should accompany an order:

LEFT-HAND Casement
Inside View.

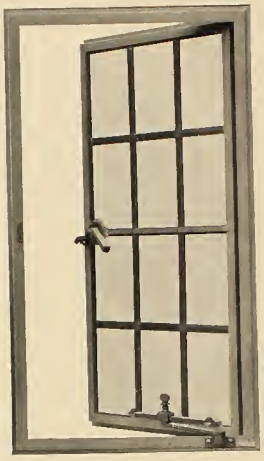
1. Exact height and width to points shewn on details below. Templates or radii of curves for shaped heads.

2. Full size sections of heads, jambs and cills, and of what materials these are composed.

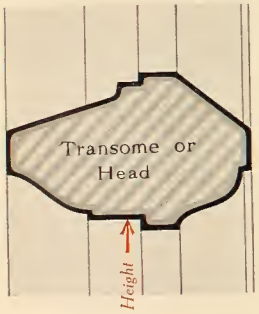
3. Which hand to be hung, looking from INSIDE.
N.B.—The hand of a casement is always on the side of the hinge, looking from the inside, whether the casement opens in or out.

4. Full particulars of the glass to be used, and instructions as to whether this is to be supplied by ourselves, or by another contractor. State whether glass is to be fixed with front putty or with steel or wood glazing beads. If leaded glass or ⊥ astragals, give design or setting out.

5. The section and quality of casement required. Please note maximum sizes given to each section.

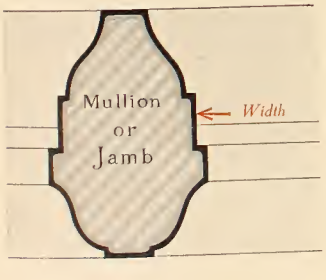


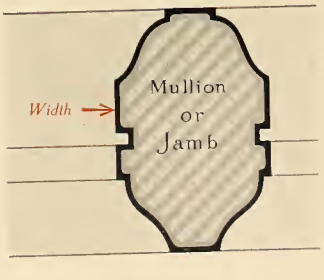
RIGHT-HAND Casement
Inside View.

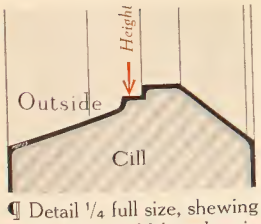


6. State hardware required, giving reference numbers to our designs.

7. State to whom the goods should be charged and consigned, also give nearest railway station.

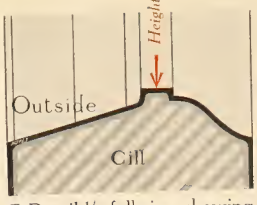






¶ Detail 1/4 full size, shewing how sizes should be taken in REBATED work.

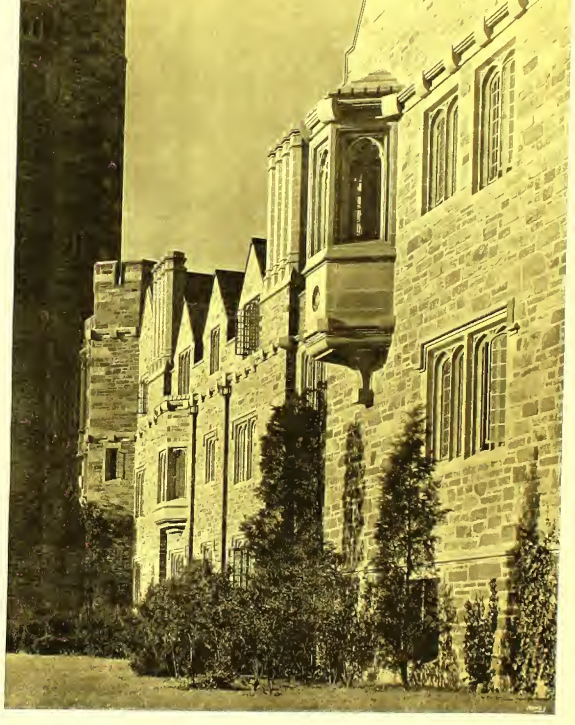
¶ Whenever practicable, and in all cases of large contracts, we will send one of our own staff to take sizes free of charge.



¶ Detail 1/4 full size, shewing how sizes should be taken in GROOVED work.

Graduate College
Princeton University

Cram, Goodhue & Ferguson, Architects



Graduate College, Princeton *(Another view)*

HOPE'S

Instructions for Installing Metal Windows

1. Care must be taken to set the casement and frame quite squarely in the opening, and on no account must any force be used in putting it in. If the opening is not large enough, the stone or wood work must be eased so that the casement will go in easily.

2. *In stone or terra-cotta,* round holes 1/2" in diameter should be carefully cut exactly opposite the holes in the steel frame. These holes should then be plugged with round lead plugs *A*, 1/2" in diameter by 1 1/8" long. Suitable plugs of this size, with small hole in centre, are supplied at $5.00 per gross.

3. The frame must be well bedded to the rebates with mastic. Mastic is a special elastic composition which we manufacture and supply in iron kegs at $5.75 per cwt.

4. Screw the frame to the lead plugs and take care not to distort or twist it in screwing up. Any distortion or twisting of the frame will shew itself by the imperfect fit of the casement when gently closed, and such distortion should be corrected by loosening the fixing screws, packing or wedging the frame to its correct position where necessary, and re-screwing up.

5. Tuck and point inside and out with mastic.

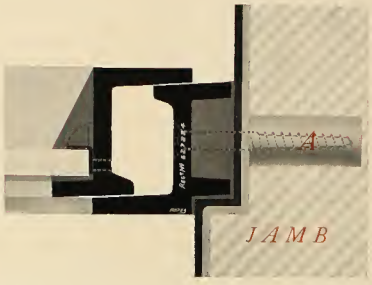
6. *In wood frames,* the above instructions hold good, except that lead plugs are not required.

7. *Fixing to grooves* is shewn at *B,* and should be done as follows:—First remove the angle fillets from the frame, then place them into the grooves, filling the grooves first with mastic so as to make a good joint. Place the casement into the opening, find the tapped holes in the fillets with a bradawl or steel point, insert screws, and screw up. Tuck and point inside and out with mastic.

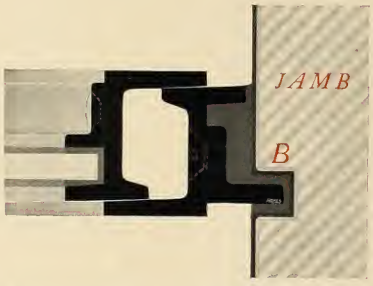
8. *In setting composite windows,* such as those illustrated on pages 14, 15, 16 & 17 (which are provided with steel lugs for setting into brick or stone joint), the procedure should be as follows:—Cut with a narrow chisel grooves of sufficient width and depth to accommodate the lugs in the correct positions. Remove the lugs from the window frames and place them in these. Then carefully push the frame into the opening, against an ample bedding of mastic, and screw the lugs up to the frame and wedge and grout the lugs in their places with strong Portland cement.

NOTE.—Care should be taken not to disturb the setting by opening and closing the casement, or attempting to put in the glass, until the Portland cement has set.

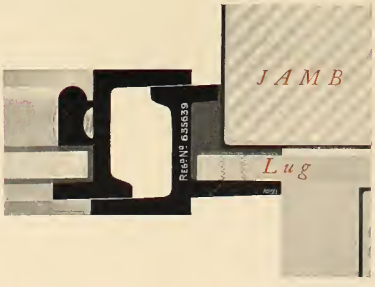
DETAILS HALF FULL SIZE



FIXING *to* REBATES

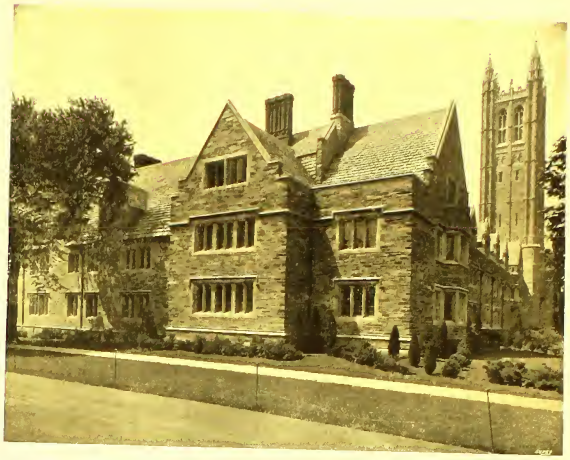


FIXING *to* GROOVES



FIXING *to* REBATES
with INTERNAL PLASTER FINISH

WARNING.—In no case should casements be set in place until the building is clear of the rougher trades. Where it is desirable to protect floors and plastering, canvas screens can be placed against the window frames at a very small cost. If casements and glazing are put in soon enough to effect this purpose they are certain to be damaged.



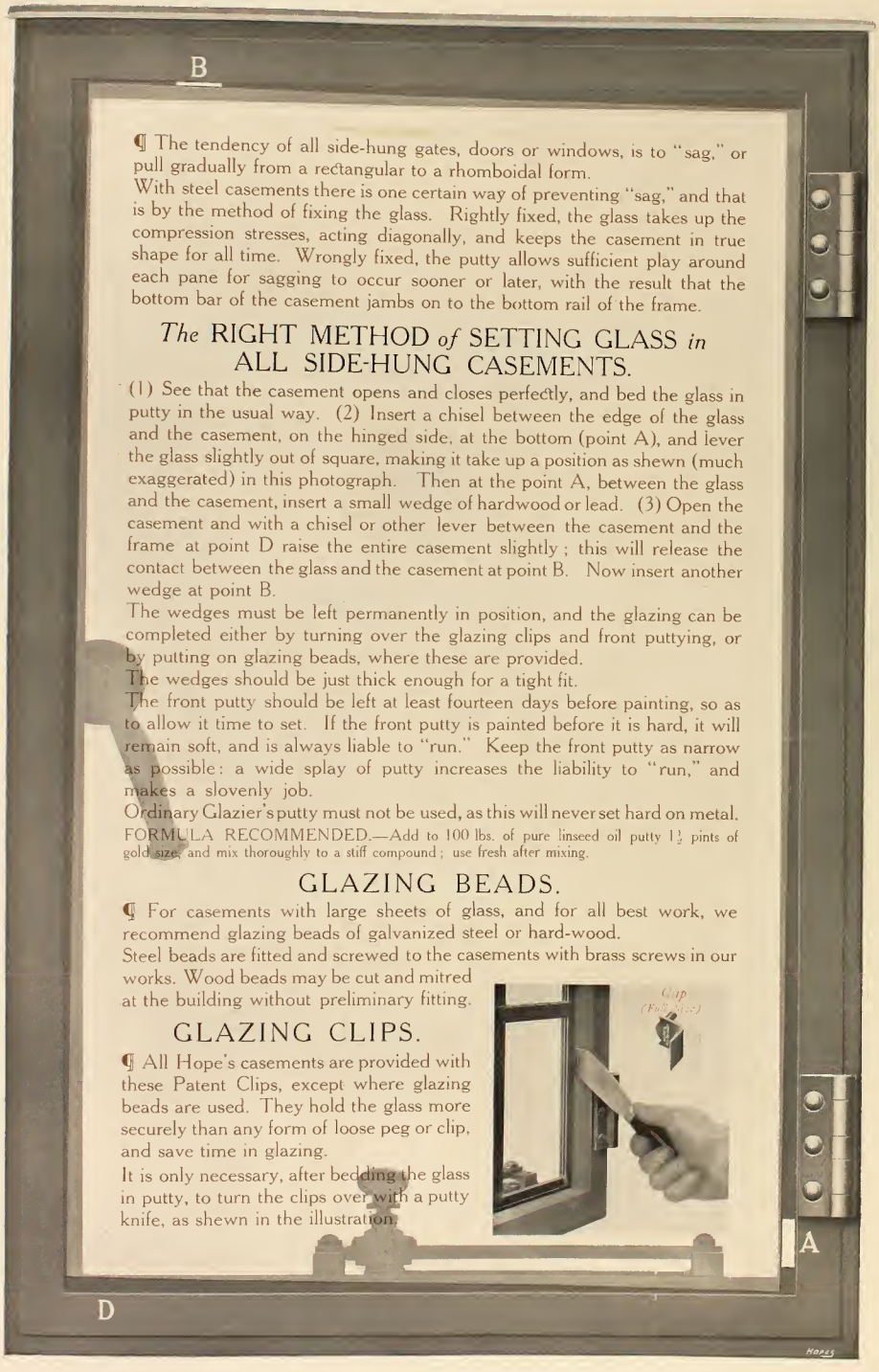
The Russell Sage Buildings
Princeton University

Frank Miles Day & Brother, Architects

St. Anthony's Hall
Yale University

Charles C. Haight, Architect

HOPE'S *Instructions for GLAZING METAL CASEMENTS*



¶ The tendency of all side-hung gates, doors or windows, is to "sag," or pull gradually from a rectangular to a rhomboidal form.

With steel casements there is one certain way of preventing "sag," and that is by the method of fixing the glass. Rightly fixed, the glass takes up the compression stresses, acting diagonally, and keeps the casement in true shape for all time. Wrongly fixed, the putty allows sufficient play around each pane for sagging to occur sooner or later, with the result that the bottom bar of the casement jambs on to the bottom rail of the frame.

The RIGHT METHOD *of* SETTING GLASS *in* ALL SIDE-HUNG CASEMENTS.

(1) See that the casement opens and closes perfectly, and bed the glass in putty in the usual way. (2) Insert a chisel between the edge of the glass and the casement, on the hinged side, at the bottom (point A), and lever the glass slightly out of square, making it take up a position as shewn (much exaggerated) in this photograph. Then at the point A, between the glass and the casement, insert a small wedge of hardwood or lead. (3) Open the casement and with a chisel or other lever between the casement and the frame at point D raise the entire casement slightly; this will release the contact between the glass and the casement at point B. Now insert another wedge at point B.

The wedges must be left permanently in position, and the glazing can be completed either by turning over the glazing clips and front puttying, or by putting on glazing beads, where these are provided.

The wedges should be just thick enough for a tight fit.

The front putty should be left at least fourteen days before painting, so as to allow it time to set. If the front putty is painted before it is hard, it will remain soft, and is always liable to "run." Keep the front putty as narrow as possible: a wide splay of putty increases the liability to "run," and makes a slovenly job.

Ordinary Glazier's putty must not be used, as this will never set hard on metal.

FORMULA RECOMMENDED.—Add to 100 lbs. of pure linseed oil putty 1½ pints of gold size, and mix thoroughly to a stiff compound; use fresh after mixing.

GLAZING BEADS.

¶ For casements with large sheets of glass, and for all best work, we recommend glazing beads of galvanized steel or hard-wood.

Steel beads are fitted and screwed to the casements with brass screws in our works. Wood beads may be cut and mitred at the building without preliminary fitting.

GLAZING CLIPS.

¶ All Hope's casements are provided with these Patent Clips, except where glazing beads are used. They hold the glass more securely than any form of loose peg or clip, and save time in glazing.

It is only necessary, after bedding the glass in putty, to turn the clips over with a putty knife, as shewn in the illustration.

· HOPE'S · CASEMENTS · *in* · NEW · YORK ·

HOPE'S CASEMENTS *at* WESTMINSTER

THIS reproduction of a Drawing by Mr. Edmund H. New, illustrates a remarkable group of buildings all within sight of Parliament Square, which have been fitted with Hope's Casements, commencing with the Houses of Parliament, which were built between 1845 and 1856, and ending with the unfinished County Hall, for which Hope's Casements were selected by the London County Council in 1914.

The reproduction hardly does justice to the drawing, but we have a limited number of prints on hand-made paper, signed by Mr. E. H. New, size 22⅝" × 6¾", suitable for framing, and we shall be pleased to send one to any of our friends who let us know in time that they would like to have one.